JPRS 74804

20 December 1979

East Europe Report

ECONOMIC AND INDUSTRIAL AFFAIRS

No. 1965

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50272-101

REPORT DOCUMENTATION PAGE	1. REPORT NO. JPRS 74804	2.	3. Recipient's Accession No.
4. Title and Subtitle EAST EUROPE REPORT: ECONOMIC AND INDUSTRIAL AFFAIRS, No. 1965			5. Report Date 20 December 1979 6.
7. Author(s)			8. Performing Organization Rept. No.
9. Performing Organization Name and Address Joint Publications Research Service 1000 North Glebe Road Arlington, Virginia 22201			10. Project/Task/Work Unit No. 11. Contract(C) or Grant(G) No. (C) (G)
12. Sponsoring Organization Name and Address As above			13. Type of Report & Period Covered 14.

15. Supplementary Notes

16. Abstract (Limit: 200 words)

This serial report contains information on economic theory, organization, planning and management; major agreements on and development of trade within CEMA and outside the Bloc; articles on all aspects of the materials, services, machine, electronics, and precision equipment industries; and concepts and attainments in agriculture, forestry, and the food industry.

17. Document Analysis a. Descriptors

x International Affairs	Economics
Albania	Technological
x Bulgaria	Agriculture
x Czechoslovakia	
x German Democratic Republic	
x Hungary	
x Poland	
x Romania	
Yugoslavia	

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group 5C, 13I

18. Availability Statement Unlimited Availability Sold by NTIS Springfield, Virginia 22161	19. Security Class (This Report) UNCLASSIFIED	21. No. of Pages 98
	20. Security Class (This Page) UNCLASSIFIED	22. Price

(See ANSI-Z39.18)

OPTIONAL FORM 272 (4-77)
(Formerly NTIS-35)
Department of Commerce

JPRS 74804

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EAST EUROPE REPORT

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BRIEFS

CEMA COUNTRIES PRODUCTION OF PROTEIN FODDER--The CEMA countries have evolved a cooperation plan for meeting the demand for protein fodder. Under the terms of the plan, Hungary and Bulgaria have developed varieties of alfalfa. At the same time, Hungary and the GDR are growing perennial grasses; the GDR, Czechoslovakia and Poland have designed self-propelled fodder harvesting combines and the Soviet Union and Poland have perfected machine systems which press fodder hay after fermenting. Directives of the collaboration call for the joint construction of a fodder yeast plant in Mozirsk in the USSR. The plant is to have an annual capacity of 300,000 tons. [Text] [Budapest MAGYAR MEZOGAZDASAG in Hungarian No 48, 28 Nov 79 p 3]

CSO: 2500

SPECIALIST INTERPRETS DECREE ON WAGE, SALARY INCREASES

Sofia TRUD in Bulgarian 17 Nov 79 p 2

[Article by Boris Mikhaylov, candidate of juridical sciences: "Wages--Their Basis and Purpose of Payment"]

[Text] The 10 November 1979 BCP Central Committee and Council of Ministers decree stipulates that as of 1 November a uniform rate scale, uniform salary scale, and a directive on wage supplements will become effective in all realms and activities. This marks the introduction of a new organization of wages which is essentially an effective instrument and an incentive for upgrading labor effectiveness and quality.

The basic and rate wages were based on the sectorial principle. This resulted in substantial disparities in payments of the same type of labor. Thus the size of the basic wage depended not on the type but the place of work. This also resulted in unjustified manpower turnover. The amount of the basic wage depended solely on education level and seniority in one's field. No attention was paid to the quality and effectiveness of the work.

We are now introducing an entirely new organization of wages consistent with the current stage of our socioeconomic development, whose more essential principles may be reduced to the following:

In order to create greater uniformity in the rating of the different types of work, based on their complexity, difficulty, and labor conditions, on the basis of the functional principle a uniform wage rate and uniform salary conditions were formulated. They list the rates and salaries of workers and employees in all national economic sectors. What are the characteristic qualities and principles on the basis of which they were built?

The term "rate or salary wage" means the wage based on the uniform rate scale or uniform salary scale. The wage rate contains seven rates and corresponding monthly wages. In sectors with adverse working conditions the ETM [Uniform Wage Rate] has been raised by the respective coefficients.

The increase is an indivisible part of the wage rate. This rate is applied in all sectors and activities of the national economy, including the cooperative farmers.

The salaries are within the "from-to" range. In the uniform salary scale the educational level listed determines whether or not the individual has the right to hold a given position and the minimum salary. After that, the specific amount of the wage is not related to education but to the individual qualities of the official, determined through certification.

In some cases a position may be held by a person with a secondary or higher education. This must be expressly stipulated in the uniform salary scale. Individuals with secondary education holding such positions who have practically proven their high skills may earn equal or, in some cases, even higher salaries compared with individuals with higher education holding the same position without distinction. It is recommended that such exceptions be allowed after close collective evaluation.

The entire gross wage, with the exception of supplements stipulated in the Labor Code and other laws is a **Flexible Value.**

Any worker whose work is paid on the basis of the rate scale shall have a rate wage in accordance with his grade. In some more difficult sectors the amount will be corrected on the basis of a rate coefficient. Employees will have an individual salary whose specific amount will be established within the limits of the "from-to" through **Certification.** Pregnant women workers and employees and mothers of children under the age of one shall not be subject to certification. After its determination through certification, the individual salary will not be the salary to be received but merely a value used for the following purposes:

It is the basis for determining supplements as per the Labor Code, the directive for wage supplement for adverse and other specific labor conditions, etc., which are precisely stipulated and are the only part of the individual fixed gross wage. They are only relatively fixed. Once defined, they remain fixed and cannot be influenced by the results of the work or the dynamics of the gross salary. They remain fixed until the time at which, on the basis of a comprehensive rating, a new salary rate is established with new supplements;

The specified individual salary is the basis for determining the amount of compensations for temporary disability;

This salary is also the yardstick for the maximum salary (130 percent or 140 percent of the wage and salary rates), which is the basis for determining longevity and old-age pensions (paragraph 110 of the regulation on the Law on Pensions).

Wages Will Grow With Labor Results

The entire wage represents a single value described as the individual gross wage, for it includes all its components. It consists of a wage or salary, with supplements based on the labor code and other laws, and additional payments within the limits of the wage fund, based on labor results.

The individual gross wage will be directly proportional to the individual contribution to results achieved by the worker or employee.

Within the limits of the general consumption income within the enterprise the amount of the individual wage will not be restricted. This means that, depending on the individual results, the working person may earn wages without a restriction as to maximum amount. This principle offers extensive opportunities for the development of the capabilities and possibilities of the individual working person.

Workers and employees who have fulfilled their official obligations (indicators, conditions, and norms) will have the right to their wage regardless of whether or not the economic organization has a wage fund. This principle guarantees the wage of the good workers in the enterprise.

The amount of individual wages of workers in all national economic sectors will be based on the results achieved in accordance with quantitative and qualitative indicators which could influence them directly. The determination and measurement of achieved results shall be based on the forms of labor organization--collective and individual. This dependency will be accomplished by linking the tasks of the brigade and the individual production worker with the plan of the subunit and shop. This is accomplished through normed plan assignments, piece-rate assignments, and other means for formulating the production tasks of the brigade or the individual worker. The normed plan assignment includes the tasks of the collective (brigade) or the individual worker for a specific period of time in terms of the volume, quality, and effectiveness of output (of the work) and the required funds for wages, material outlays, size of personnel, labor tools, etc., determined on a normative basis.

By Council of Ministers Decree No 36 of 1979 the income of economic organizations in industry was made directly dependent not only on the quality and quantity of goods produced but their full marketing--contracting, sales, and receival of the earned amounts by the enterprise. This stipulation demands of the entire collective of the enterprise to pay particular attention to the quality of its output, marketplace requirements and variety, etc.

These basic principles governing the organization of wages show that the most favorable conditions have been created for the manifestation of the abilities and skills of the individual working person and for the equitable and full reward of such efforts. In turn, the enterprise collectives must master with full awareness and increased energy the new methods and work technologies. They must display a creative approach to the work process and organize total coordination and interaction among the individual units within the enterprise. They must make rational use of machines, equipment, materials, and working time. The optimum organization of labor and production inevitably leads to lasting and good results which, in turn, enhance the material prosperity of the working people.

5003
CSO: 2200

DEPUTY MINISTER JUSTIFIES PRICE INCREASES

Sofia TRUD in Bulgarian 17 Nov 79 p 1

[Article by Spas Georgiev, deputy minister of foreign trade: "Powerful Incentive For Increasing the Effectiveness of Foreign Economic Relations." For related information see JPRS 74743, 10 December 1979, No 1962 of this series, pp 6-15]

[Text] The decisions contained in the BCP Central Committee and the Bulgarian People's Republic Council of Ministers decree raising wages and other income of the working people and making wholesale and retail prices consistent with the objective conditions of economic development and with increasing its effectiveness, are important not only in terms of their depth and strategic intent but the precisely determined topical nature. These decisions are the logical extension of the party's and government's line of steadily upgrading the quality and effectiveness in all realms of our economy under the conditions of constantly changing international circumstances.

In recent years all of us have witnessed the new prices phenomena in the capitalist economy characterized by exceptional gravity, comprehensiveness, length, and socioeconomic consequences. The crisis has affected international economic relations particularly tangibly, strongly distorting the existing trade and payments system. In their efforts to find suitable protective means a number of countries introduced strong protectionist measures. However, such measures were unable to prevent the galloping price increases of some basic commodities in international trade: petroleum and petroleum products, solid fuels, industrial raw materials, technological equipment and installations, etc. Along with this, the more complex international political circumstances, triggered by the militaristic course of the main imperialist countries, brought about increased expenditures for armaments. All this was manifested in the tempestuous development of the inflationary processes in the capitalist countries, the strong devaluation of the basic capitalist currency--the United States dollar--the instability at international commodity and monetary markets, and the random changes in price relations.

In the past three years alone the international prices of basic commodity groups have increased by an average of 40-50 percent. However, this increase has been divided quite unevenly among the various commodities. Whereas some commodities experienced insignificant changes, the prices of others such as crude oil and petroleum products, electric power, other energy carriers, ferrous and nonferrous metals, and some types of machines and equipment, rose severalfold. The changes could not fail to reflect on Bulgaria's foreign trade as well and, through it, on domestic production and consumption. Bulgaria cannot effectively develop modern large-series production without active participation in the international division of labor. For this reason our country is among the leading groups of countries in the world in terms of foreign trade per capita. In 1978 the foreign trade volume of the country exceeded 13.5 billion foreign exchange leva which, in terms of our national income, amounts to over 75 percent.

Such data essentially determine the open nature of our economy which is particularly sensitive to changes in international circumstances. In this case, as a result of the objectively developed circumstances, the changes which have occurred in the ratios of international prices have not been to our advantage. The fact that the basic economic relations of Bulgaria are with the fraternal socialist countries limits, to a certain extent, the adverse influence of the fast growth of prices in the capitalist world. Regardless of this, however, the country has suffered and is continuing to suffer real losses. This makes difficult the foreign exchange balances of the state.

As a country which is intensively developing its production forces, Bulgaria is a major importer of industrial raw materials and energy carriers, one of a kind equipment and specialized machinery, for which it is forced to allocate an ever increasing amount of foreign exchange. At the same time, for reasons independent of our will, prices of Bulgarian export goods are rising at a considerably lower pace. Therefore, the country is faced with the dilemma of either slowing down the pace of its development and continue to lose in its foreign economic relations or take decisive measures to improve the structure and effectiveness of the national output and increase the effect of its participation in the international division of labor. That is why it is imperative today to accelerate the process of intensification of export sectors, improve the quality and competitiveness of Bulgarian export goods, and develop an optimum export structure.

This is also the basic line of the party and the government systematically promoted and intensified in a number of important documents and decisions. The 10 November 1979 decree is another vivid manifestation of the farsightedness of the Bulgarian Communist Party. In this connection, the maximum utilization of possibilities for a more effective development of the economy, created with the decree, calls for the full mobilization of all labor collectives, the development of the creative initiative of the socialist working people, the thrifty use of imported raw and other materials, energy and fuel savings, and decisively upgrading the quality and effectiveness of domestic production. The personnel within the foreign trade system, entrusted with the effective marketing of a large percentage of the creative toil of our people, must find their proper position within this process.

5003
CSO: 2200

BREAKDOWN OF ENERGY CONSUMPTION, DISTRIBUTION NOTED

Prague SVET HOSPODARSTVI in Czech 6 Nov 79 p 3

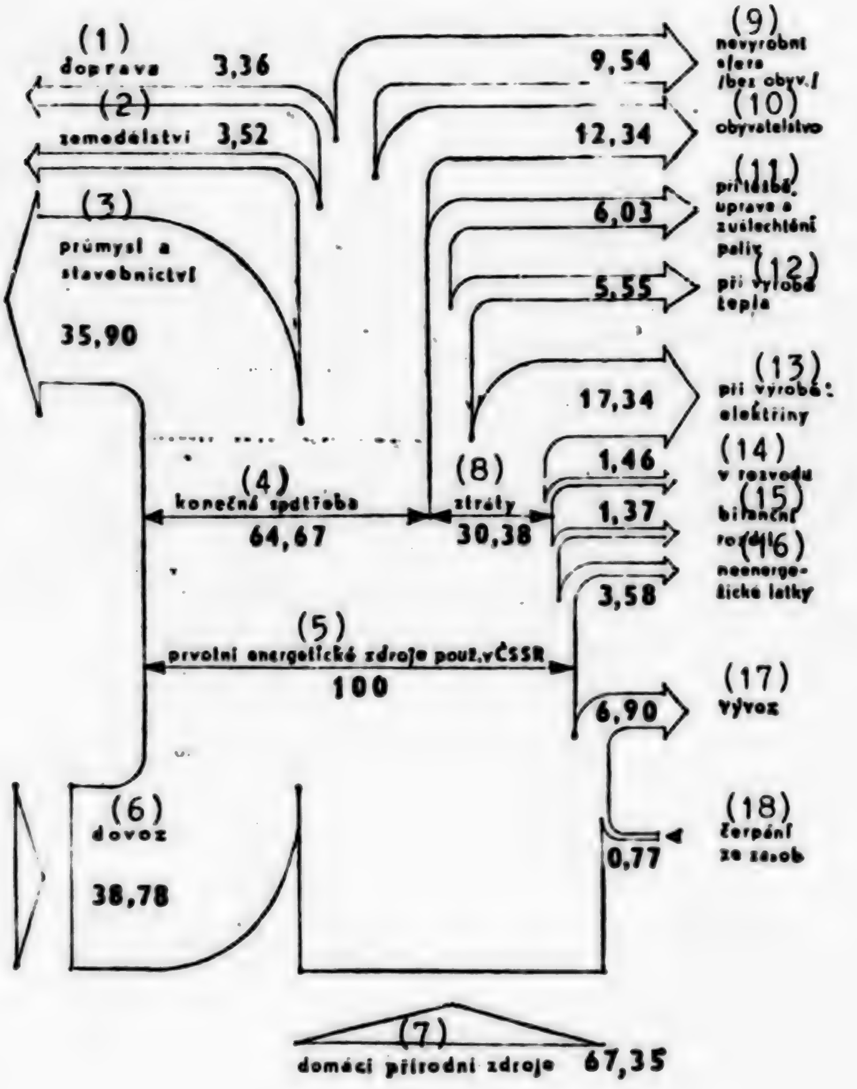
[Interview with Engr. Jiri Kures, technical secretary of the State Power Inspectorate (SEI), by Jarmila Blazkova: "Better Fuel and Energy Management"]

[Text] In evaluating the experiences of the past winter in supplying the national economy and the population with fuel and energy, and in establishing future goals in June of this year, the Presidium of the CPCZ Central Committee and the Czechoslovak government proceeded from the reality that the assurance of energy sources for the growing demands of our economy is one of the most difficult problems in the development of our society. The limited possibilities for the importation of fuel and energy sources and the continual rise of their prices on world markets demand a number of measures. In particular, it will be necessary to more efficiently utilize domestic raw material resources and to manage as economically as possible all types of fuel and energy. We asked the technical secretary of the State Power Inspectorate, engr. Jiri Kures, to answer our questions.

[Question] Comrade secretary, could you say a few words, by way of introduction, concerning the overall problems of our fuel and energy management?

[Answer] The current and especially the prospective situation, with regard to all of the negative factors in the area of energy management, demands maximum economization in the utilization of fuel and energy in all sectors of our national economy. Households, which have a significant share of overall consumption, are included in these sectors. The following diagram provides an orientation concerning the shares of individual sectors in the consumption of fuel and energy in our 1978 fuel and energy balance:

Composite Energy Balance of CSSR for 1978 in Percentage of Primary Energy Resources



Key:

1. Transportation
2. Agriculture
3. Industry and Construction
4. Final Consumption
5. Primary Energy Resources Utilized in CSSR
6. Imports
7. Domestic Natural Sources
8. Losses
9. Nonproduction Sphere (excluding population)
10. Population
11. In Extraction, Preparation and Enrichment of Fuel
12. In Heat Production
13. In Electricity Production
14. In Distribution
15. Balance Differential
16. Non-energy Materials
17. Exportation
18. Drawing Down of Stockpiles

The fourth independent meeting of the People's Parliament of the Federal Assembly discussed fuel and energy management issues in great detail. The commentary of the Fuel and Energy Minister of the CSSR, Vlastimil Ehrenberger, on the report which was submitted and the presentations of the delegates in the discussion constitute not only an excellent orientation on the issues but also are a directive for actions directed at lowering the high energy requirements of our national economy. It is a warning, that from 1976 to 1978, that is in the course of three years, [the utilization of] overall primary energy resources, due to low consumption efficiency, was 4.4 percent higher than planned, which materially represents 13.6 million tons of standard fuel. From this amount of energy, converted to brown and black coal, it would be possible to produce 34 billion kilowatt hours in thermal power stations, which represents roughly the six month output of factory and Federal Fuel and Energy Ministry power stations in 1978.

[Question] Lowering energy needs and the economization of energy conversion processes is one of the main tasks of our society. The fulfillment of the goals of the Federal Program for the Rationalization of Fuel and Energy Consumption is among the important conditions for the reliable supplying of fuel and energy to the national economy. This program includes concrete goals for all branches of the national economy. Their fulfillment would lead to a significant, intensive lowering of energy requirements in all areas of utilization. What have been the experiences in this regard?

[Answer] At the present time it is absolutely essential to assure the successful fulfillment of all of the goals of the Federal Program for the Rationalization of Fuel and Energy Consumption for the duration of the Sixth Five Year Plan. It is a matter of tasks for the administrative sphere, for producers of apparatus which makes possible the successful course of the rationalization process (for example semiconductor, illumination, measurement and regulation technology), for fuel and energy consumers and for others, tasks which are quite concrete. At the same time it is necessary not to underestimate results achieved in other sectors, for it is in the simplistic nature of the approaches to the rationalization process that there are continually the greatest shortcomings. And even though it is possible to conclude, on the basis of the predominant decline of measured fuel and energy consumption in 1978, that the principles of socialist rationalization are gradually being applied, at the same time this lowering is occurring unevenly and has not achieved to date the desired level. As the energy balance sheet shows, the most intensive results were achieved only in 1978, when the energy requirements of national income, expressed in tons of standard fuel per billion Kcs., declined by 1.98 percent from 1977. Also favorable is the so called elasticity coefficient which characterizes the relationship between national income growth and the increase in primary energy resources. In 1977-78, primary energy resources increased 0.62 percent for a 1.0 percent increase in national income. This coefficient is 0.7-0.8 in France and the German Federal Republic and about 1.0 in the United States, Canada, Sweden and Japan. It is, however, necessary to state that the above results far from correspond to the needs of the national economy regarding the desired lowering of its energy requirements.

I would like to once again emphasize that the assurance of further dynamic development requires not only a strengthening of the development of domestic energy sources, but also their most efficient utilization within the entire economy. Therefore it is essential to consistently tie the process of rationalization of fuel and energy consumption with the national economic plan, to tenaciously strive for the formation of energy management aggregates at all levels of administration which are responsible for the economic utilization of fuel and energy, to engage experts of various specializations in the process of rationalization with the goal of assuring its complex character, creating, especially through economic stimuli, a favorable climate for the introduction of progressive products and appliances, from the viewpoint of energy efficiency, evaluating the utilization of secondary energy resources in the whole process of planning, record keeping, etc. as primary energy resources. A shortage of the means for rationalization, of spare parts, of maintenance and repair facilities, of design and construction assembly facilities, the continuing low level of service quality, combined with other factors, negatively affect the implementation of the rationalization process.

[Question] Last winter was a great lesson for all of us. It revealed many weaknesses and caused many problems for us. We are still feeling the results, even though the damages are gradually being repaired. The SEI is carrying out inspections of consumers in various production branches. How are enterprises prepared for the upcoming winter?

[Answer] For later goals it is quite proper not to forget about the upcoming season. We have been convinced, during our inspections of the preparedness of selected consumers of electrical energy and heating gas, that they are assuring winter preparations in a responsible manner. The decisive factor in this is that leading management workers, after the experiences of last January and February, are fulfilling to a greater degree those tasks to which the Presidium of the CPCZ Central Committee committed them in preparation for the 1979-80 winter season. In many of the inspected factories and enterprises committees of experts have been established for the evaluation and assurance of the accepted measures. These are directed, for example, at the regulation of consumption in the event of a declaration of the regulation of deliveries of electrical energy and heating gas with the least possible negative impact on the fulfillment of production goals (e.g. the shifting of appliances to night shifts, the organization of replacement work and the preparation of production). Responsible workers are appointed to see to the fulfillment of these and other measures. A regular evaluation of the situation and inspection of the implemented measures is provided for. It is also significant that tasks connected with the rationalization of fuel and energy consumption have been assured and analyses of consumption, the fulfillment of consumption norms and indicators implemented.

As an example of the correct approach, it is possible to cite the measures proposed and implemented at the black coal factories at the Klement Gottwald Mine in Libusin, where a director's order contains concrete measures for lowering consumption in the peak energy load zone. Measures for the conservation of energy have also been realized, for instance a restriction on the running of compressors during afternoon and night shifts, transformer exchange, etc. In the Vagonka Studenka factory it has been arranged that energy consumptive appliances with intermittent operation not be operated at peak times. In the sector of economization of energy consumption a reconstruction of lighting sources has been implemented and welding technology modernized. In the Elitex Jablonec nad Nisou factory during the winter, energy consumptive appliances will be transferred to the night shift. Significant energy conservation was achieved through the replacement of induction furnaces in the die foundry with resistance furnaces.

It is gratifying, to be sure, that increased activity is appearing in preparation for the winter season in industry, transportation, construction, agriculture and elsewhere. It is however most essential, not only for the national economy but also for each individual, that the current activity appear in all sectors, but that it also become a system which is a prerequisite for the successful fulfillment of the Sixth Five-Year Plan for the development of our national economy and for a successful beginning of the Seventh Five-Year Plan.

[Question] The consumption of electrical energy and heat in the nonproduction sphere and by the population is continually increasing. Can observation measures in these areas significantly contribute to a solution of the fuel and energy problem?

[Answer] It is true that the energy requirements of our national economy are not determined only in the production sphere, but also in the nonproduction sphere and by the population. This is evident from their almost 22 percent share in final fuel and energy consumption in the CSSR and from the fact that the yearly increase in their consumption is roughly twice that of the production sphere. It is necessary to devote special attention to preparations for the upcoming winter in apartment management, where there continue to be very extensive possibilities for fuel and energy conservation.

Apartment management enterprises have a great responsibility and potential in this regard. As a number of examples indicate, it is necessary to repair furnaces, exchange stations and all of the central heating apparatus (especially to insure the mobility of regulating knobs on heating elements-radiators) with the required foresight, to instruct stokers regarding heating conservation, to insure the necessary pre-supplying with fuel. Attention to the house fund is also connected to heating conservation. Concretely, it is necessary to insure the proper operation of door locks, the glazing of windows in collective spaces, cellar and outside doors, the closing up of dormers, doors and openings in attic spaces, etc. In the interest of electrical energy conservation in the apartment fund it is necessary to repair automatic staircase lights, cellar switches and in high rise apartments to gradually apply the sectional illumination of staircases and hallways.

I emphasize however, that attention to the economical utilization of fuel and heat is not only the concern of the owner of the house. It is in the interests of the tenants themselves to strive for efficient economization. There are many possibilities here. Above all they must inspect the operation of the central heating system with the cooperation of the heating commissions. It is also important to inspect the deliveries and consumption of fuel from the point of view of amount and quality.

It would also be a great help to the enterprises of apartment management if tenants and heating commissions would inform them of conditions which are the cause of excessive losses of heat and electrical energy so that employees of apartment management enterprises can repair them. In their own apartments each tenant should, and I emphasize again, in his own interest, attend to the careful sealing of windows and doors. It has been shown that a good sealing job increases the temperature of the heated spaces, given a constant input of heat, by as much as 4 degrees centigrade. Greater conservation definitely results from shorter and more frequent airing out periods. Airing out for a long time excessively cools the walls and furniture and thereby worsens thermal comfort at the same time that is unnecessarily increases the demands on the heating system. From the viewpoint of thermal comfort and health it is efficient to heat rooms to a predetermined temperature. For instance, one sleeps better in a bedroom with a temperature of 16 degrees centigrade than in one which is overheated. It is possible to regulate the heat with the help of the regulating knob on radiators or by setting the desired temperature on thermostats, where these are installed.

There are also significant reserves in the use of hot water. For example, washing dishes under running hot water is very uneconomical, taking a shower is four times more economical, from the viewpoint of the energy consumption needed to heat the water, than taking a bath, not to mention increased hygiene. Enough has been written already about unnecessary and often unfavorable lighting or the unreasonable use of appliances requiring electrical energy, and therefore I shall not elaborate further on this issue. A number of apartment management enterprises are developing extensive activity in the indicated directions and it is necessary that they be supported right from the start by all tenants. Only in this way will results correspond to the expended effort and the needed and required conservation of fuel and energy in this area be achieved. On behalf of everyone, I would like to cite the appeal of the Prague 4 Sectoral Apartment Management Enterprise, that is the sector with the highest population and greatest apartment stock in Prague, which calls on the tenants to help and to contribute to the economical operation of heating systems.

[Question] What are some additional conservation possibilities?

[Answer] Permit me in conclusion to point out possibilities for the conservation of heat and electricity in schools, public rooms, offices and other such spaces. These include limiting the heating of such spaces during nonworking hours to a moderate level, heating work spaces to the temperature established by appropriate norms, paying attention to the technical level of illuminating apparatus, to its proper maintenance and utilization. For example, at cleaning time only those spaces being cleaned should be illuminated, not the whole building.

Naturally, I have not been able to point out in this short interview all of the problems and methods for their solution, but I have tried to note the major ones so that, I hope, we may return to them and to several other ones with a more detailed analysis.

9276
CSO: 2400

CZECHOSLOVAKIA

BLACK MARKET IN MOTOTECHNA STORES INVESTIGATED

Bratislava PRAVDA in Slovak 16 Aug 79 p 5

[Article by Viera Sladeckova: "Why Are the Under-the-Counter Sales Flourishing in Mototechna Stores--For a More Consistent Solution of Problems in Supply of Components and Spare Parts for Automobiles"]

[Text] The unprecedented growth of "automobilism" in our country is one of the symptoms of our improving living standard. At present 30 out of every 100 households in Slovakia on the average own their car, and there are 40 cars per every 100 households in the CSR. In other words, there is on the average one private car per every 11 citizens of the WSR and per every 6 citizens of the CSR. It is no coincidence whatsoever that we mention these statistics which represent actual owners of various kinds and types of private "cars." The fact is indicative that they all realized that the recent adjustments in gasoline prices were unavoidable, and understood their correlations. They understood just as well the regulations on speed limits in accordance to valid and generally known ceilings. We have not received a single expression of disapproval or dissatisfaction, which indicates unambiguous understanding and approval of the decisions issued by the state.

In our editorial offices, however, we are receiving continuously complaints and charges made by motorists about problems connected with shopping for various spare parts. This is a protracted problem shared by car owners, who indicate that certain components or spare parts are available only in an underhanded way and for an appropriate bribe--which is hard to prove because nobody invites a witness to a shady deal.

In view of the dissatisfaction at this time on the part of the motorists with the research for spare parts, we must appreciate the step taken by the State Trade Inspection (SOI) whose organs "raided"the Mototechna. They tested the honesty of the sales, the supply of spare parts and components in its stores and in the kraj storehouses and branch plants of the Mototechna national enterprise in the SSR. As Julius Sedlacek, director of the central investigation department of the SOI, informed us, 65 retail stores, 10 kraj storehouses, and 3 branch plants were inspected. Because most complaints come from the owners of Skoda 100, 105, 120, VAZ-LADA, Moskvich, and Fiat 125 cars, the investigators focused particularly sharply on those components, spare parts and honest sales.

Although as long as in April 1976 the federal government adopted measures to improve the organization and to stimulate the production of spare parts. According to the results of the investigation by the SOI considerable disproportions between the demand and supply of the goods under discussion continue to this day. Mototechna retail stores are unable to supply certain spare parts and components for the most popular models of vehicles, the Skoda models throughout the year. Naturally, this situation spurs the under-the-counter sales and simultaneously causes consumer dissatisfaction.

Comrade Sedlacek, central director of the SOI, told us: Mototechna retail stores placed their orders for the whole quarter--all at the same time. However, the deliveries are unsatisfactory. Moreover, the same retail stores are also in practice supplying the non-market consumers (state organizations), including automobile repair shops." At the same time he mentioned that in 402 instances the Mototechna retail stores, for example, ordered in the first quarter of 1979 a total of 58,625 items of spare parts and accessories for Skoda 100, but only in 149 cases (i.e. 37 percent) they received a total of 5,052 items (i.e., 8.6 percent). In only 150 cases out of 278 cases did they receive the parts they had ordered for Skoda models 105 and 120, and only 17 percent of their orders. As for the VAZ LADA vehicle, orders were filled for 67 cases (out of 91) or by 68.5 percent, for Moskvich it was 11.7 percent, and for Fiat 125 [only] 11.2 percent. The situation with the filling of orders is critical in central kraj storehouses. Many types of items never reached the storehouses, and even when the orders were confirmed, their fulfillment was inadequate. Unfortunately, if the central stockrooms fail to release the goods and confirm the orders to the central kraj storehouses or a branch plants no legal sanctions apply. Moreover, all goods are not distributed according to a set schedule, and thus, this is a breeding ground for unequal distribution of such supplies and their objective deployment in the SSR. Naturally, without any proper schedule, the distribution is "played by ear"--according to estimates, or even to personal inclination and individual "obligations."

The officials of the State Trade Inspection see the causes of this situation in inadequate planning, the supplier's monopolistic position and in the irregular supply of our domestic market with these kinds of goods. At the time of the investigation by the SOI, the demands of branch plants of the Mototechna had not been fulfilled 100 percent in even one single instance, and the situation with the deliveries of components and spare parts for private vehicles of our domestic vehicles is even worse than with the parts for imported vehicles. The State Trade Inspection, the Ministry of Trade of the SSR, and other organs can offer specific proof. Comrade director Sedlacek said about problem that: "The fulfillment of deliveries according to the structure of their selection depends on their production. If the manufacturers fail to deliver the parts to central storehouses, the consumer cannot buy those parts in retail stores. The consumer-supplier relations between the branch plants and the central storehouse have no legal basis, and thus, even their directors were unable to take any position when discussing the results of our investigation. It is therefore imperative that the problems of legal obligation in consumer-supplier relations be expeditiously dealt with and resolved at the Mototechna branch plant level and the enterprise administration as well as between that enterprise and the general directorate of the Czechoslovak Automobile Works (CAZ) in Prague. This is necessary because under the current conditions the deliveries are non-obligatory, which is thwarting the supply of this line of goods. We must trust the understanding of the comrades in the above-mentioned managing capacities that in conjunction with the program to improve the planned management they will also arrange us soon as possible a legal basis for this type of supplier-consumer relationship and assume an active attitude to it, as expected from responsible workers. However, along with this problem, in the foreground appears also the urgent need to resolve the current unsettled situation in sales of spare parts to non-market consumers. The arguments of the State Trade Inspection have revealed it in its fully Comrade Sedlacek said: "Under the given circumstances it is impossible to judge objectively the regulation of sales, since the share of the non-market consumers is set at up to 85 percent of the retail turnover. A feasible solution is to either open special retail shops or stockrooms for sales to non-market consumers (organizations), or stipulate specific shares in sales of individual types, with simultaneous consideration of the needs for this or that part in special trade services. However, the experience has shown that the sales of individual types of parts and components to non-market consumers range from 10 to 100 percent." We agreed that the unfavorable situation in the supply of spare parts for private cars as well as the inconsistent regulations for sales to non-market consumers consequently affect the appearance and spread of undesirable, anti-social phenomena on the market, because many salespeople take advantage of the shortage of goods and engage in forbidden preferential--under-the-counter--sales. After all, during the investigation by the State Trade Inspection concealed goods in the value over Kcs 65,00 had been found in 11 retail stores. In every case they involved scarce types of spare parts and accessories. For instance: in Mototechna retail store No 9708 in Krupina, whose manager is Stanislav Ballak, 31 car battery units, persistently sought after by the motorists were found in the storeroom. A State Trade investigator posing as an anonymous consumer asked for one of those particular batteries. Anna Holinova, a saleswoman, informed him--an unknown customer--that car batteries were not available. After the inspection the manager of the retail store received a fine of Kcs 2,000 and the saleswoman a fine of Kcs 500.

An additional 65 Mototechna retail stores bills were checked for accuracy in 117 control purchases; 103 of them were billed correctly, 8 were overcharged and 6 undercharged--causing a loss to the store. For example: Marta Smalova, the manager of Mototechna retail store No 9717 in Rimavska Sobota quoted an incorrect price for a [coke plate] and saleswoman Anna Repkova did not maintain the bulk (weight) when selling a PVC hose and a [choke plate]. The store manager was fined Kcs 1,500 and the saleswoman Kcs 300.

About 2,000 items checked by SOI for labeling of the goods with price tags; 34 items were not marked and two types were marked incorrectly. For instance, the price on a set of car lights was marked as Kcs 175 instead of Kcs 117; the price of a carburetor was marked as Kcs 1,030 instead of Kcs 940.

Numerous motorists are complaining that the personnel in Mototechna stores failed to test the lightbulbs they purchased, and then they found it difficult to make their claim to exchange the defective merchandise for a good one. For instance, a H-4 lightbulb costs the consumer Kcs 86. The central director of the State Trade Inspection also explained this problem: "We are aware of it, and our organs in 15 of the inspected retail stores (i.e., 23.1 percent) ascertained that this duty had not been observed--the purchased lightbulb had not been tested and when the claim was made, the personnel refused to exchange it. That is another kind of consumer fraud against which we are applying appropriate measures and sactions. For information of the consumers who shop in the Mototechna, I should like to mention that in accordance with guideline No 13, issued by the Mototechna enterprise director in Prague, the sales slip must contain the following data: the catalogue number, a description of the merchandise, the unit price, the total price, the stamp of the retail store, and the salesperson's signature. Our organs found violations of this guideline in four of the Mototechna retail stores: the description of the merchandise was illegible, and every item purchased did not appear on the bill."

A question arises about the consequences drawn from the disclosures and about the measures adopted to eliminate such shortcomings. We shall mention some of them: 1. Records of the inspection were prepared in all of the inspected stores of the Mototechna national enterprise; the shortcomings were discussed with store managers and specific measures to eliminate the deficiencies were agreed upon. 2. The results of the inspection in retail stores were discussed in branch plants of individual krajs of the SSR with the participation of their managing workers, representatives of the basic organizations of the Communist Party of Slovakia and of the plant committees of the Revolutionary Trade-Union Movement. The directors of those plants issued appropriate measures to eliminate the disclosed shortcomings related to operational activities. 3. In accordance with the appropriate article of the law, the kraj inspectors of the State Trade Inspection announced decisions prohibiting the use of semiautomatic scales in seven retail stores where such scales had been found defective. 4. Due to shortomings confirmed in retail stores, 14 workers--10 of them managers--were penalized with fines amounting to Kcs 15,000. Block fines in the amount of Kcs 480 were imposed on six workers, three of them managers; in one case a second-year apprentice received a written warning and in another, a managing worker received written warning.

Engineer Vaclav Fiala, first deputy director of the Mototechna enterprise in Prague, came to the central inspectorate of the State Trade Inspection in Bratislava to discuss the results and measures as result of the investigation. According to a written record concerning the submitted report, he did not express any opposition. The results of that review were subsequently discussed in the enterprise committee of the Revolutionary Trade-Union Movement, the basic CPCZ organization, and the basic organization of the Mototechna Employees Union in the directorate of the Mototechna enterprisewide conference of all directors of the branch plants of the Mototechna national enterprise from all over the CSSR. In his personal letter Engineer Miloslav Jalovec, the enterprise director of the Mototechna, immediately issued measures aimed to eliminate the disclosed shortcomings and to prevent other deficiences: internal controls in the enterprise will continue to check them as a part of its supervisory activity.

However, all measures which the Mototechna enterprise directorate issued and is now observing cannot solve the basic situation as far as the supply is concerned--in other words, the disproprotions between the supply and the demand. It is a fact that the situation on the market is unfavorable for the motorists. There are growing demands not only for those car components and spare parts that were the target of the investigation by the organs of State Trade Inspection, but also for other types, particularly those for Skoda vehicles. Wiper blades, whole windshield wipers, direction indicators, regulators, stop-light guards, car batteries, distributors, rubber gaskets for brake gears, rubber hoses, etc., continue to be in short supply. Some Mototechna retail stores received these scarce parts for Czechoslovak-made Skoda cars for the last time in 1977: Well, that opens an opportunity for speculation and under-the-counter sales, which is causing dissatisfaction of great many owners and users of private cars.

We have mentioned some solutions. However, in order to fundamentally and comprehensively solve all these problems connected with the insufficient supply on the market, the divisional federal ministries of engineering, in cooperation with both national ministries of industry and trade must unconditionally analyze the whole system of supplier-consumer relations and find realistic solutions within the extent of their competence. Furthermore, the Ministry of Foreign Trade of the CSSR must address itself to this problem earnestly (by means of appropriate instructions to the Motokov foreign trade enterprise); moreover, it is expected that the State Planning Commission will express its position. Our editorial board is sending a clipping of this article to the General Directorate of Czechoslovak Automobile Works in Prague. As soon as the standpoints and replies received from the interested organs and organizations are collected, on the pages of PRAVDA we shall return once again to the solution of the problems connected with spare parts and components for private cars of our domestic makes as well as for imported automobiles.

9004
CSO: 2400

WORKERS REPAIR BLAST FURNACE EARLY, EARN LARGE BONUS

Bratislava PRAVDA in Slovak 24 Aug 79 p 2

[Comment by Jan Markovic: "To Apply the Mobilizing Force of Target Bonuses"]

[Text] The term wage is a reward for work completed within a stipulated period. It is particularly suitable where the process and the amount of works performed cannot be reliably determined, for example, in assemblies and general repairs outside the plant, or when processing complex, expensive and unusually elaborate components. In addition, the term wage is used also in those cases where the application of a wage per task would endanger the workers'lives and health, for instance, when working at high altitudes with explosives, etc. The disadvantage of the term wage is an insufficient stimulation of working initiative; on that basis it reflects the changes in the level of labor productivity. It is therefore almost a rule that the term wage is always supplemented with an appropriate type of target and other bonuses.

It is something of a surprise that thus far nothing of this sort has been considered for general repairs of blast furnace No 2 in the East Slovakia Iron Works, although most people in construction are working for term wages. It is a surprise only because many experts working at present in general repairs of blast furnace No 2 in the East Slovakia Iron Works participated in the spring of 1979 in the intermediate repairs of the blast furnace in the New Metallurgical Works of Klement Gottwald, where already during the planning of the repair schedule target bonuses for early completion of individual operations had been considered. I discussed this problem with Eduard Kollar, chief of assembly at the Metallurgical Assemblies in Ostrava, who is also a vice president of the construction-wide CPCZ committee. The workers were told by the New Metallurgical Works of Klement Gottward even before beginning of the repairs that if they would meet the deadline and finish the repairs ahead of the plan, the investor would pay the workers of Metallurgical Assemblies a bonus of Kcs 30,000 for every day of work completed ahead of schedule.

Eduard Kollar said: "Thus my assembly workers knew in advance that it would be worth fighting for to meet the deadline, because in addition to their regular wages they had an opportunity to earn the target bonus for completing the work ahead of schedule. This meant a powerful material stimulus, which is further evident from the fact that we completed the intermediate general repairs in the New Metallurgical Works of Klement Gottwald 5 days before the deadline. It is a matter of opinion whether this means a big or small accomplishment of more than 200 men, but those who have seen our assembly workers in action at high altitudes and burning steel jackets in the blast furnace or on constructions in dust and high temperatures will agree with me that our assembly workers have earned their money, particularly during such repairs they work a 12-hour day in a stretch, not to mention that they also work Saturdays and Sundays."

In this conjunction I recalled what Engineer Otto Tomasu, the enterprise director of the East Slovakia Iron Works, said at a seminar on mass political work held on 26 January 1979, i.e., before the beginning of intensive preparations for current general repairs of blast furnace No 2: ". . .It is envisaged in the specifications of the state plan that general repairs will be completed in 115 days, which is unprecedented on such a scale in our country. The stipulation of this deadline are derived not only from the fact that general repairs were foreseen in the guidelines for the Sixth Five-Year Plan, that it is mentioned in the decisions of the government, and that such a short term had been discussed at the 12th session of the CPCZ Central Committee, but particularly because any extension would considerably affect not only our enterprise but our entire national economy. If the repairs are extended by 10 days, it means a loss in production of at least Kcs 70 million, and as for rolled materials, it means 30,000 tons of sheet metal which would not be delivered to our domestic customers but also to foreign markets. . ."

From this it follows that we realize how important this general repair of the blast furnace is for our economy which will raise its heretofore useful capacity by almost 700 cubic meters. Party, union and youth organs and organizations in the enterprise,town and kraj were fully aware of that fact when during the planning stage they paid--and are still paying--attention to mass political work in the construction during the general repair of the blast furnace. This has been confirmed by the people's great devotion to their work on the construction and by their almost daily meeting of partial deadlines ahead of schedule.

It is true that rumors are circulating on the construction site about some kind of bonuses to be paid after the completion of general repairs. Nothing has been officially said about the amount of that bonus and who will get it. But in the end, no matter how large that amount may be, what kind of a mobilizing effect may it have if it does not provide a stimulus during the most critical days of the construction? In that case it will miss its target. The organizers of general repairs of the blast furnace in the East Slovakia Iron Works should bear this in mind and remedy the situation promptly because it is incomprehensible, for instance, that there should be "discussions"going on about such a "problem" as who is supposed to pay from what funds for a cup of coffee served to workers coming to work Saturday and Sunday. This was considered a matter of course in the New Metallurgical Works of Klement Gottwald. Even though its cost was just Kcs 2.30, the people appreciated this as an expression of the attention on the part of the enterprise for their sacrificing their well-deserved day of rest in their family circle to the benefit of our socialist society. It is therefore our duty to express appreciation for these people's devotion not only in words but whenever necessary, also by material rewards.

9004
CSO: 2400

NORMATIVE AGRICULTURAL PRODUCTION COSTS CALCULATED

Prague ZEMEDELSKE NOVINY in Czech 15 Nov 79 p 3

[Article by Engr Jan Burian, CSc, Research Institute of Economics, Agriculture and Nutrition, Prague: "New Method of Normative Calculation of Costs for Agricultural Products Developed by Research Institute of Economics, Agriculture and Nutrition"]

[Text] The Research Institute of Economics, Agriculture and Nutrition in Prague has developed a method of formulating and applying normative calculations of the costs of agricultural products and computations of the normative variants of the cost plan of agricultural products for individual agricultural enterprises (JZDs [Unified Agricultural Cooperatives] and state farms in the CSR) and middle management echelons. The effects of the modifications of economic instruments as of 1 January 1980 are projected in the normative cost calculations which makes it possible to use them in the preparation of enterprise cost plans for 1980. The method will be checked out in more than 300 JZDs and state farms.

Normative cost calculations have been compiled for 74 agricultural products and classified into a methodic range of special calculation formulas. Cost coefficients are determined for individual agricultural products in order to make it possible to subsequently specify normative calculations according to hectare yield and utility (coefficient Ii), according to the natural conditions under which the agricultural enterprise operates (coefficient Pp) and the level of technical-organizational development of individual branches (coefficient Tt) and enterprise concentration of the branch (coefficient Kk).

Basic Procedures

Individual items of normative cost calculations are derived from available technical norms (seeds and plants, feed, synthetic fertilizer, local fertilizer, other direct materials, depreciation of fixed assets, direct wages) and from economic normatives (other direct costs, repairs and maintenance, production overhead, enterprisewide overhead). The economic normatives and cost coefficients are based on data of a selected grouping in our institute which includes approximately 30 percent of the JZDs in the CSR.

The information in this article contains only a simplified example of the calculation of ascertained normative costs (wheat) and a simplified example of the calculation of a normative variant of costs of agricultural production in relation to reported production and cost returns of the Chynov JZD in Tabor okres, production region B2 with an agricultural acreage of 4,485 hectares. Production and cost figures are taken from the enterprise report of actual costs for the year 1978. The effects of the modifications of economic instruments as of 1 January 1980 have been added to the reported costs. The example is for illustrative purposes only; the JZD cited was selected entirely at random.

First we will take up the general calculation of normative expenditures in the production of the wheat which the enterprise cultivated in an area of 771 hectares [ha] with a reported crop of 3,150 tons of grain or 4.1 t/ha. The normative cost calculation determined that the overall cost for producing the wheat was Kcs 4,980 per hectare with a yield of 4.75 t/ha in the beet-growing region (see Table No 1).

Cost Coefficients

We will use cost coefficients to convert this normative to the conditions of the Chynov JZD. These coefficients express normatively the effects of the main group of factors influencing costs of agricultural production. To make the explanation concise we will use only a simplified example of coefficients (Ii) indicating the effects of hectare yields of wheat on the level of costs per hectare and per ton.

The Chynov JZD achieved a wheat yield of 4.1 t/ha, therefore in this example we will use the coefficient 0.951. The Chynov JZD operates in the potato-growing region. So the normative cost must be further defined by means of a coefficient (Pp) expressing the effects of differentiated natural conditions in relation to comparable hectare yields of wheat in the beet-growing region. For the potato-growing region this coefficient is established at the level of 1.04 (for the potato-oats region it is 1.08; for the mountain one it is 1.12).

Calculations Example

In addition, it is necessary to consider the level of technical-organizational development of the individual branches which is determined by their technical equipment, the type of technology used and the expenditure of direct manual labor for a product unit. These cost influences are expressed by coefficients (Tt). In the Chynov JZD the expenditure of direct manual labor was 12.45 hours for the production of 1 ton of wheat which considerably exceeds the normative expenditure of labor. This considerable excess clearly cannot be tolerated; still, it is necessary to allow for the present obviously inadequate technological equipment and organizational control of the branch.

For these examples the coefficient (Tt) is set at a level of 1.25.

In 1978 the Chynov JZD harvested grain from an area of 1,863 hectares. The cost effects of the enterprise branch concentration are fixed normatively by a coefficient (Kk). In this case the level of this coefficient is 0.980.

The normative cost for the production of wheat in the Chynov JZD is then determined in this way:

Kcs 5068/ha = 4980 0.951
1.04 1.05 Kcs 0.980/ha

Unit normative costs are thus obtained by deduction of the normatively determined portion of by-products and by covering the costs of the main product through hectare yields.

(Kcs 5068/ha - Kcs 456/ha):
: 4.1 t/ha = Kcs 1125/t.

Normative costs in converting to 1 ton of wheat should, under the Chynov JZD conditions--at a yield of 4.1 t/ha--be about Kcs 1100-1150.

Overall normative costs for the production of wheat in the Chynov JZD would thus be Kcz 5068/ha x 771 ha = Kcs 3,907,000.

The normative level of costs for the production of wheat classified according to individual items of calculation is obtained by multiplying the overall normative costs for the production of wheat (Kcs 3,907,000) by the itemized coefficients listed in Table No 1.

The Chynov JZD reported its overall costs for the production of wheat to be Kcs 3,122,000 which must be modified by the effects of the changes in economic instruments as of 1 January 1980 to a level of approximately Kcs 3,800,000. In this case, therefore, the JZD produces wheat at a cost level of 97.3 percent in relation to normatives of wheat production.

First Findings

This example, of course, is not typical because in most cases the cost normatives are exceeded which their very make-up presupposes because they are established on the basis of median cost economy. The extent of the overrun, however, should not exceed 5 percent. Otherwise one must conclude that it apparently reflects under-utilization of investments or mismanagement.

By coincidence, in the present case normative and converted actual costs are almost identical since the resulting difference is quite negligible. General analysis has shown that overruns of normative costs in plant production occur especially in items of synthetic fertilizer, direct wages and overhead expenses, whereas savings in respect to normative costs in animal production show up as significant savings in local feed. Only a more detailed analysis in the enterprise or on the level of the JZD would show the circumstances of these deviations.

Our findings show that in a number of cases the normative costs of agricultural production are exceeded by 10 or 20 percent or more. Normative calculations reveal very serious cases of disproportionately high costs in a whole series of enterprises.

Making use of cost normatives calls for a thorough knowledge of the material contents and the method procedures, since only in this way can their application effectively contribute to the desirable results in efforts to raise the efficiency of intensification in agriculture. We realize that the method developed by us requires thorough verification in practice and further improvement. Therefore we welcome any suggestions directed toward improving the results of our work.

Table No 1

General Normative Calculation of Costs for the Production of Wheat Basic
Production Region: Beet-growing

Standard Yield Range: 4.5-5.0 t/ha

Calculation Item	Costs		Type of Cost Structure in %
	Kcs/ha	Kcs/t	Total cost = 100.0
Seeds and plants	620	130	12.4
Total fertilizer	1310	276	26.3
Of this: purchased	920	194	18.5
local	390	82	7.8
Other direct materials	350	73	7.0
Direct wages	300	63	6.0
Repairs & maintenance	---	---	---
Depreciation of fixed assets	50	10	1.0
Other direct costs	1120	235	22.5
Of these: primary	550	115	11.0
secondary	570	120	11.5
Production overhead	800	169	16.1
Admin. overhead	930	12	8.7
Total costs	4980	1048	100.0
By-products	450	94	9.0
Main production costs	4530	954	91.0
Fixed accounting price	8075	1700	---
Profit	3545	746	---
Extent of earning capacity	78.2	---	---
Coefficient of costs	0.56	---	---
Hrs of labor productivity	227	---	---
Annual labor productivity in thousands of Kcs	500	---	---

Table No 2

Coefficients of Cost Effects of Differentiated Wheat Yields

Yield range t/ha	Coefficients Ii ha	Costs Kcs/ha	Coefficients Ii ha	Costs Kcs/t
Up to 3.5	0.91	4532	1.33	1269
3.5-0.4	0.93	4631	1.18	1124
4.0-4.5	0.96	4781	1.07	1024
4.5-5.0	1.00	4980	1.00	954
5.0-5.5	1.04	5179	0.94	898
5.5-6.0	1.09	5428	0.90	859
6.0 and over	1.15	5727	0.87	834

8491
CSO: 2400

STATISTICS ON MERCHANT FLEET, HARBOR DEVELOPMENT PUBLISHED

East Berlin DDR-VERKEHR in German Vol 12 No 11, Nov 79 pp 375-377

[Article by Artur Maul, general director, VEB Combine Merchant Traffic and Harbor Management: "Merchant Fleet and Harbors in the 30th Year of the Existence of the GDR"]

[Text] On the occasion of the 30th anniversary of the GDR an impressive balance sheet was shown in all sectors of the economy. In only 30 years, historically a short period of time, industrial production increased tenfold, national income sevenfold, and foreign trade sales were 35 times greater.

This development also made demands for enormous increases in capacity on the part of merchant traffic management in its role as part of the unified GDR transport system. In implementing the party and government directives on economic policy, which are consistently aimed at meeting foreign trade demands, there was a systematic buildup of our own merchant fleet and harbor management--starting with the First Five-Year Plan, and, because of liberal support measures, it was continuously subject to further development. Today, the merchant fleet and harbors (Tables 1-3) attest to the economic strength of the GDR and guarantee foreign trade, transit partners and other foreign users that their transport and transshipping tasks will be handled efficiently and satisfactorily.

Table 1. Development of the GDR Merchant Fleet

Year	Number of Ships	Capacity in dwt [deadweight tons]
1952	1	1,550
1955	9	13,280
1960	47	277,424
1965	127	794,715
1970	175	1,339,953
1975	198	1,792,589
1978	197	1,825,553
1979	192	1,865,384

Table 2. Ship Types in the GDR Merchant Fleet

Ship Type	Number	Capacity in dwt
General cargo ships	105	690,989
Coastal motor ships	33	12,632
Container ships	9	3,666
Bulk freighters	22	278,045
Ro/ro ships	4	12,618
Heavy-lift ships	1	1,273
Refrigerated cargo ships	10	56,830
Tankers	7	222,040
Passenger ships	1	12,068

Table 3. Development of Volume of Goods Transported by the GDR Merchant Fleet

Year	Tons
1952	30,000
1955	133,000
1960	1,375,000
1965	6,243,000
1970	8,511,000
1975	11,198,000
1978	12,029,000

Table 2 reflects the fleet capacity which enables merchant traffic management, in the framework of its scheduled shipping, to guarantee regular shipping connections. Thus, the VEB DSR [German Maritime Shipping Company, Rostock] maintains scheduled service to India, Pakistan, Bangladesh, Sri Lanka, China, Korea, the Far East, Vietnam, Cuba, Mexico, South America (east coast), the Middle East, West Africa, East Africa, the Red Sea, the Mediterranean, Albania, the Arab Republic of Egypt [ARE], Algeria, the USSR, western Finland, southern Finland and Great Britain.

In addition, there is special container service to the Red Sea, the Mediterranean, the USSR, Great Britain, and scheduled ro/ro service to Great Britain and Finland. Scheduled service was likewise started between ports of the Mediterranean and the Middle East, and container service was initiated between the Mediterranean and the Middle East. Most recently, on 1 August 1979, ro/ro service to the USSR (port of Riga) was begun.

Furthermore, the VEB DSR is putting an extensive fleet of tramp ships into service. Thus, bulk freighters between 12,000 and 38,000 dwt are calling primarily at ports in the Mediterranean and Black Sea areas, India and both South and North America. Freighters with a 3,000-4,000 dwt capacity are in service for importing raw materials. A fleet of 10 refrigerated ships is being used primarily for importing fruit, while 7 tankers, with a total capacity of over 222,040 dwt, handle the ocean transport of crude oil. The heavy-lift ship "Brocken" transports overly-heavy and bulky goods, industrial equipment and complete installations with unit weights as high as 500 tons.

The development of regular, tramp and special tonnage contributes to the continuous increase in transport capacities for GDR foreign trade. At present, 31.4 percent of all oceanborne GDR foreign trade is handled by the merchant fleet. Our own transport capability takes care of 59 percent of the volume.

It was simultaneously possible to increase transport capacities for transit partners, chiefly the CSSR, the Hungarian People's Republic and Austria. Furthermore, significant capacities were made available to the merchant fleet for cross-trade transport. The most important ports of West European countries are included in the extensive network of DSR scheduled service, and for years shippers using these ports have been provided with conditions of performance which have become internationally customary. GDR shipping has proven to be a reliable partner in this.

Harbor capacities, which have been systematically expanded since the establishment of the GDR, form the basis for the efficient service which is available to GDR foreign trade and the transit partners. A decisive development occurred when the Rostock harbor was put into operation on 1 May 1960. At present, more than 75 percent of all transshipping by GDR harbors is done in this harbor. It was possible to increase capacities in all harbors by steady intensification and rationalization, as the following table shows:

Year	Total	Rostock	Wismar	Stralsund
1949	--	1,296	971	--
1955	2,514	288	1,046	685
1960	4,461	1,408	2,241	813
1965	8,934	5,897	2,189	848
1970	12,776	10,138	2,394	866
1975	15,454	12,312	2,346	796
1978	16,699,123	12,867,825	3,070,378	760,920

These are also the basis for the fact that, in addition to DSR service, regular connections to Australia, Denmark, and Norway from and to GDR ports are maintained by foreign shipping companies. Other foreign scheduled shipping companies in the USSR, the Polish People's Republic, the CSSR, Cuba, Finland, Denmark, Sweden, Norway, the FRG, the Netherlands, India and Brazil provide, within the framework of their services, regular departures from GDR ports.

There was likewise a continuous increase in the handling of transit goods, and at present this accounts for about 9 percent of all transshipping via GDR harbors.

The development of the fleet and harbors and the demands placed on them in terms of capacity simultaneously required adequate economic and management organization.

A management organization, which satisfies the requirement of centralized control of the overall reproduction process of this transport branch, was created by the establishment of the merchant traffic and harbor management combine on 1 January 1974; this combine unites all enterprises and installations directly necessary to take care of oceangoing transport and goods transshipment; these include the services of shipping companies, harbors, clearance and chartering brokers, pilots, towing, salvage, tallying and ship supplying.

Developing and stabilizing a politically and technically highly qualified cadre of sailors, skilled harbor workers, masters, engineers, ships's officers and economists were directedly linked with the buildup and development of the merchant fleet and harbors. For this purpose, special professional and master's training for fleet and harbors was established, and intensified initial and continuing training of advanced school and technical school cadres were realized at the Warnemuende/Wustrow Advanced Engineer's School for Shipping and the Wilhelm-Pieck University in Rostock. Today, 7.5 percent of all staff workers in merchant traffic management have completed advanced school, 12.5 percent are graduates of technical schools, 8.3 percent have master's training and 63.5 percent received training as skilled workers.

On the basis of the sociopolitical measures taken by GDR party and government it was possible continuously to improve the working and living conditions of seamen and harbor workers. Examples of this are, among others, the introduction of new technologies for transport and transshipping to reduce strenuous physical work, putting new ships from GDR shipbuilding production into service which have improved living and working rooms, automatic engine operation, air-conditioned living rooms, and also the increase in the extent of mechanization in the harbors. These measures were rounded out by wage increases, shortened work time, lengthened vacation time and the preferential availability of vacation sites for seamen and harbor workers. The accomplishments of seamen and harbor workers in fulfilling the plan tasks were acknowledged by these measures.

In honor of the 30th anniversary of the establishment of the GDR, the seamen and harbor workers of the VEB Combine Maritime Traffic and Port Management took on heavy obligations for the 1979 plan year in order to guarantee the economy's oceangoing transport and transshipping tasks. At the same time, they developed a large number of new initiatives and activities to increase the readiness for service of the fleet and the efficiency of the harbors. As a result of this, in the first 6 months of the year, they not only cleared up arrears in the plan, which had developed at the beginning of the year because of inclement weather, but they also fulfilled the transport and transshipping tasks of foreign trade, including transport tasks in the framework of international solidarity. Thus, 5.8 million tons of goods were transported by the merchant fleet, and 8.1 million tons of goods were transshipped in the harbors. The workers simultaneously exceeded essential economic indicators, including the counter-plan obligation, such as freight income with 104.3 percent, goods production with 102.7 percent and enterprise output with 108.6 percent. It was possible to achieve these results by the consistent application of scientific-technical progress through the realization of the plan for science and technology and activating the innovator's movement in close teamwork between seamen, engineers, technicians and employees in the technical workshops.

The enterprise collective is attacking with equal vigor the realization of its additional competition obligations with the goal of all-round fulfilling of the plan in 1979.

Development of the fleet and harbors in the past few years also carried the imprint of the GDR's membership in CEMA, which has been in existence since 1949. While the initial years were characterized by help from the USSR and other socialist countries in building up the GDR fleet and harbor capacities, to an increasing extent GDR merchant traffic management is making its contribution to guaranteeing capacity for the oceangoing transport requirements of the socialist community of states. The comprehensive program of the CEMA member countries, which was adopted in 1971, to intensify socialist economic integration, introduced into the process a new level of cooperation. Accordingly, merchant traffic management is actively involved in the work of the Standing Advisory Council of the chartering and shipping organizations of the member countries. In addition, bilateral and multilateral cooperation were further expanded; in the process, further development of the community's scheduled service was in the forefront: Rostock-Riga, Uniafrica, Cubalco, Balafrica and Baltamerica.

In the harbor management sector, "Interport," the GDR and Poland's joint economic organization, which was established in 1974, has contributed to more efficient utilization of existing harbor capacity in the GDR and Poland and has resulted in speeding up and increasing goods transshipment. It was possible to increase the mutual utilization of harbor capacities from 320,000 tons in 1974 to 1.8 million tons in 1978. Beyond that, intensification of economic cooperation is concentrated on coordinated development of harbors, cooperation in the development and acquisition of transshipping equipment, the introduction of efficient maintenance methods at transshipping facilities, and rationalization of cargo handling and the introduction of efficient technologies.

Incorporating the GDR in the CEMA socialist community of states and its inclusion in the fleet capability of this community simultaneously form the basis for equally justified involvement in international merchant traffic. The GDR's merchant traffic management, on the basis of the expansion and intensification of socialist economic integration, advocates actively putting into action the principles of peaceful coexistence and international cooperation in the interest of economically efficient cooperation and of a division of labor that is mutually advantageous. This is expressed in one way by the cooperation with shipping companies in nonsocialist countries within the framework of the community's scheduled service: GDR-ARE, GDR-India, Adria-West Asiatic Gulf and GDR-Finland. However, another expression of this is the cooperation of the merchant traffic management enterprises in international organizations such as BIMCO [Baltic and International Maritime Conference], ICHCA [International Cargo Handling Coordination Association], ISSA [International Social Security Service] and INSA [International Shipowners' Association].

Not least, the VEB DSR, as a member of the shipping conferences, makes an active contribution to handling shipping that is based on a division of labor.

The level of development achieved in the 30th year of the existence of our republic in merchant traffic management forms a solid initial basis for fulfilling the steadily growing demands on the merchant fleet and harbors which are being made by our well-developed economy. In this sense, merchant traffic management is faced with the task of guaranteeing more extensive accommodation of the transport and transshipping requirements of GDR foreign trade and a reduction in the services required from the non-socialist economic sector, primarily through intensification measures and through expanded reproduction which is aimed at increasing efficiency.

For the merchant fleet this means a further increase in capacity in the coming years by putting into service new ships of the Poseidon, Meridian and OBC [ore, bulk container] series, manufactured by the GDR shipbuilding industry, with simultaneous retiring of obsolete vessels. On the basis of intensifying cooperation with partner shipping companies in the CEMA member countries, especially for scheduled shipping, the key issues are the qualitative development of significant scheduled service using modern ship types, loading capacities which are in line with growing requirements and the introduction of modern transport technologies such as container and ro/ro transport. At the same time, additional routes must be opened up and commercial connections with shippers must be expanded. Directly associated with that, extensive reconstruction and modernization measures for the use of modern transport and transshipping technologies are being implemented in the harbors, particularly in the port of Rostock, and additional facilities for handling special goods are being built. The goal is a further increase in transshipping capacities and speeding up ship clearance.

The accomplishments of seamen and harbor workers in the 30 years of our republic, the experiences collected and the varied initiatives of the workers in the entire transport branch guarantee that even the additional targets will be fulfilled. The key to success is the creative and strenuous work of the workers and the close cooperation with other socialist countries.

12124
CSO: 2300

BRIEFS

NEW MEASURING UNITS--["Gradual introduction of new measurements: effective 1 January 1980; first in official business and legal transactions"] Berlin (NZ/ADN)--The new measuring units of the International Standard Unit System (SI) will be first introduced on 1 January 1980 in official business and legal transactions within the GDR. Thus in the future the measuring units of performance will be expressed in watts or in kilowatts instead of horsepower (PS). And the future measuring unit for heat will no longer be a calorie but a joule. The unit pascal will replace the torr measuring unit for pressure. Many working people who must immediately deal with the new measuring units have been prepared in courses by the chamber of technology. Wherever necessary, in the interest of clarity the old measuring units will be printed in brackets after the new ones. The introduction of the new measuring unit in sectors of the national economy poses a number of questions. Thus instruments with new scale divisions will be necessary, particularly in the chemical and power industries. [Text] [AU300825 East Berlin NEUE ZEIT in German 23 Nov 79 p 2 AU]

MEETING OF GRAIN SPECIALISTS--In 1979 grain was grown on every second hectare of crop area in the GDR. Of the total grain harvest, one fifth is used in the form of flour or cereals directly for consumer supply, two thirds as fodder, 5 percent as seed material, and 8 percent is used for further processing in industry. On 15 November 1979, at the annual conference in Leipzig-Markkleeberg sponsored jointly by the GDR Society for Agronomy and the Bernburg-Hadmersleben Institute for Grain Research, 500 scientists and specialists discussed possibilities and methods for further intensification of grain production. [Text] [Schwerin SCHWERINER VOLKSZEITUNG in German 16 Nov 79 p 2]

CSO: 2300

TIMELY PROBLEMS OF MANPOWER MANAGEMENT DISCUSSED

Budapest PARTELET in Hungarian No 11, Nov 79 pp 50-56

[Article by Dr Ferenc Trethon, minister of labor affairs: "Timely Problems of Manpower Management"]

[Text] Guaranteeing the right to work is one of the fundamental theses of our constitution. This places on socialist society the obligation of ensuring full employment.

We have carried out this task in accordance with timely economic policy goals. In practice we must distinguish between two phases, interlinked with one another and yet separable from one another. In the first phase --with relatively ample manpower--the goal was expanding employment opportunities and providing enough jobs. As a result of this we obtained virtually full employment--everybody could work, and what is more we achieved such full employment in our homeland years ago that it can be increased further not at all or only to a minimal degree. The ratio of active earners among men reached 83.6 percent last year--as compared to possible manpower sources--and reached 69.4 percent among women, or 78.4 percent including those on child care aid. This ratio cannot be increased among men because those not in a working relationship are primarily students and, to a small extent, those unable to work for health reasons. Some of the women capable of work but who are neither working nor studying can be found in the households but even if suitable conditions were ensured only a small percentage of them could be put to work. In essence those entering the ranks of workers only replace those being retired so the number of active earners can hardly be increased.

An Apparent Shortage--Significant Internal Reserves

Now, after achieving the quantitative task of full employment, the question comes to the fore: How are we working? Economic efficiency is of determining significance in the intensive phase of development. As a result of this the requirement today is to employ manpower where and in a manner which is most rational for the people's economy.

Thus in the future--while maintaining full employment of the population of working age--we must ensure more consistently than heretofore the fulfillment of the requirement of efficiency and rationality and must separate from one another the tasks appearing at the levels of central guidance and enterprise management.

In our homeland under the conditions of full employment--as a requirement of our social and economic practice--the increase in the number of jobs and in the manpower demand thus generated exceeds the increase in manpower supply. The problem is increased by the fact that the employment of the existing manpower is far from efficient--partly as a result of the large number of jobs with a low level of technical equipment--which is reflected in, among other things, the unfavorable development of productivity. But the backwardness appearing in productivity also indicates that there are large reserves almost everywhere in the utilization of basic work time. The situation is similar in improving quality, in modernization of the production and product structure, in improving the organization of work processes and in exploiting market possibilities. Our problems are increased by the fact that the productivity and efficiency levels are quite low not only internationally, including by comparison to a few socialist countries, but also in comparison to our own possibilities. Our backwardness is well illustrated by the fact that in regard to industrial productivity Hungary is in the lower third of the 20 European countries. The productivity of the developed capitalist countries exceeds that of our industry 2-2.5 times.

In regard to the level of productivity of agricultural work Hungary was in 14th place out of 16 European countries (in 1966-1970). Our position was the same at the beginning of the 1950's but the difference, as compared to the countries ahead of us, has increased. Among the socialist countries both the GDR and Czechoslovakia are ahead of us (by about 70-80 percent). All of this is worthy of note because the abilities of the Hungarian workers are no worse than those of the workers of other countries.

There can be no doubt that a number of objective factors (geographical, geological and technical) play a role in this comparison which is unfavorable to us but the relative backwardness in work productivity calls attention to the fact that almost everywhere there is a relative manpower surplus! So how can there be a manpower shortage at the level of the people's economy?

It is a well known fact that with the achievement of full employment the rural and provincial manpower reserve, which had amounted to hundreds of thousands earlier, disappeared; it is also well known that the demographic situation does not ensure even maintaining the present number of personnel.

So there apparently is a manpower shortage but in reality there is not. What is really involved is that the old reserves have been exhausted and a new source must be found if we want to increase production. In other words, we must make use of the internal reserves! But enterprise behavior and practice have stuck at the fact of a manpower shortage. And many leaders, instead of uncovering reserves within their own enterprises, virtually fell into a panic. In many places they misinterpreted full employment, which appears as a state task, as if it were an enterprise task. They ignored the real enterprise goal, to employ manpower in a way that satisfies economical and efficiency requirements, and strove to increase personnel and hold on to virtually everybody.

Instead of abolishing uneconomical jobs and regrouping those employed in them, instead of an organization which ensures optimal utilization of production factors, instead of differentiation which encourages an increase in output the practice of levelling remained characteristic. As a result of this general work discipline relaxed and the situation which developed favored individual viewpoints which opposed social interests. Only by increasing productivity and ensuring balanced employment and rational utilization of manpower can we overcome this. This must be seen clearly everywhere today.

Possibilities for Increasing Productivity

Many factors influence the level of productivity. Of these there are three closely interdependent elements with the aid of which we could increase productivity relatively quickly without any significant investment. The first is better utilization of possibilities deriving from the increase in technical equipment. The second is to increase the level of organization. The third is increased attention to the role of human factors.

In recent times the increase in social production has derived in its entirety from an increase in productivity.

But it is not a matter of indifference to society from what the increase in the efficiency of work derives! Does it derive from an improvement in organization or from more intensive work, from a more economical production structure or from better exploitation of market possibilities, or does it derive from mechanization, which uses a significant part of the fund accumulated from the national income?

There are many who say that the increase in the reliance of production on tools is a world phenomenon. Naturally this is a fact but the essential thing is what products do we produce on the more modern and more expensive machines--poor quality products which can be sold only at a low price, or modern ones which can be marketed well? Is it a matter of indifference how we use this equipment? If more valuable machines are put into production then it is a fundamental interest that they be used to manufacture products with a higher use value and the market must recognize this fact in the course of marketing. And if it is not possible to increase prices then the profitability of production must be increased by improving the combined efficiency of live and embodied work (the assets tied up), by decreasing expenditures. It is at this point that there is a link between the increasing reliance on tools and the necessity of modernizing the production or product structure and improving efficiency.

We are not rich, we cannot pride ourselves on ample capital or large manpower reserves. Our possibilities are limited. So it is twice the problem that the organization of work in our homeland is far from satisfactory, although we have very great, virtually unlimited possibilities in this area. It is often and credibly stated that organization is the best investment, but that "cultivating" this, realizing it is not easy. In this work we must not only link work processes to one another well, we must also change attitudes. A narrow way of looking at things causes damage in the very interpretation of the concept; activity is limited to operations and work organization whereas organization is part of enterprise work as a whole. We do not need self-serving organizational plans; what we need is for organization to be a force present in every aspect of carrying out economic tasks.

How often do we find that we are incapable of understanding that one minute can be more expensive than a diamond! Looking at our management of time an observer might well believe that Hungary was one of the richest countries to permit itself such waste. Significant social work time is lost due to bad organization and under-utilization of production factors. The incomplete utilization of the time base, in accordance with the order of work, often leads to end-of-month or end-of-year sprints, to overtime. This circumstance is worthy of note because in the meantime there is a social demand to decrease work time.

But when we urge a good utilization of time we are not thinking that every plant and factory must produce in three shifts. This is not it at all. Where they produce with low efficiency or at a loss even one shift is too many! But where activity is profitable even without state support as many shifts are justified as are needed to produce that quantity of goods which can be sold economically.

Taking care of external contacts is also part of organization. The laxity of contacts among enterprises and the bad state and contract discipline now hold back more efficient work in an extraordinary way.

In support of all this let me say that I recently studied in detail the extent to which the so-called manpower shortage--which has caused such alarm--was hindering the utilization of highly productive, modern capacity. The more precise study brought to the surface entirely different causes of "harm" such as the lack of discipline in cooperation, the inflexibility of import, the bad quality work of those delivering materials, the poor timing of export deliveries, the obsolete product structure, the decrease in competitiveness, the poor foundation for developments, etc. It turned out that where enterprise organization was good they were able to use their capacity by exploiting existing reserves.

The human role is the most decisive in increasing the productivity of work. Thus mechanization, technical development and even organization are capable of achieving their goal only if conditions have been created whereby the achievement of rational enterprise goals is accompanied by the possibility of realizing individual aspirations and of exercising individual abilities, where the worker profits too. This includes a suitable level in regard to working conditions and social services. All this can mobilize an increase in productivity and efficiency to no small degree. Unfortunately it is not rare to find that the investments connected with social services and improving working conditions are "economized on" and removed from investment plans, saying that these do not produce more goods. In such a case one must ask: Is not man the chief production factor?

Speaking of people and human circumstances we must also weigh the behavior of the workers. We talk a lot these days about the unity and mutuality of rights and responsibilities. This is no accident. In the interest of perfecting the cited harmony there is need for modification of the Labor Code. The regulations should help, for example, to see that it does not take years to terminate the work relationship of the lazy and negligent, that those who change jobs frequently for unacceptable personal reasons should feel the disadvantageous consequences of their behavior. It is a condition for the harmony of social and individual interests that there should be a harmony between the responsibility felt by society for the individual and that felt by the individual for society.

Earnings Differentiation According to Performance

One can sometimes hear the ironic observation that in our wage practices we "offer incentive for less work." This is not what is involved. What is involved is something which Gergely Berzeviczy formulated in this fashion: "A stupid man is also lazy because he does not desire a better fate, because he is unaware of one. A clever man will become lazy if he acquires the sad conviction that he cannot, in the final analysis, improve his lot even with extra effort!" And this word, "improve his lot," naturally applies not only to above average performance but also to the material recognition and respect accorded it.

In recent decades, for various reasons and with various means, we have gotten people used to the idea that it is enough to satisfy one half or one third of the requirements. We are not able, and the signs are that we do not very much want, to make a substantial distinction between good and disciplined work on the one hand and slackness and lack of discipline on the other. The final result of such a habit--if you like of such education--is that general lack of demandingness with which we meet in every area of life. This causes even more damage, if such were possible, than the losses due to lost time, for example. We shy away from a strong differentiation according to the quality and true value of work, saying that public opinion would react adversely to it and would find it difficult to accept earnings ratios based on different performance.

It is the basic error of this conception that it incorrectly equates differentiation based on differing performance with an unequal distribution of incomes independent of performance and does not make a distinction between differentiation and the development of extreme ratios. It must be understood that a differentiation based on earnings proportional to performance is an import basic principle of the practice of economic incentive. To the extent that the social tolerability of this causes a problem somewhere the fault is not the correct principle of differentiation but rather the bad exercise of it. Let us recall the Stakhanovite movement, which had its outstanding individuals the accomplishments of whom--exceeding the average many times--no one disputed. Nor did people object to the justice of the accompanying material and moral recognition--again exceeding the average many times. The antipathy and the bad social feeling was caused by the trumped up accomplishments created for considerations which could not be justified by any social interests and by the material and moral consequences thereof. If the differentiation is coupled with real performance requirements and if attention is paid to differences in training or working conditions then one need not fear rejection by public opinion. In my opinion the toleration of society and of public opinion, cited by so many, is more likely to become critical if the material and moral recognition of the significantly different performance of workers with less or greater than average ability are not differentiated but are levelled on the basis of egalitarianism.

But the problem is even more complicated than this. We must also consider that in the final analysis the social utility of the work done by individual men can be measured by the development of the results of enterprise activity. It is in vain for someone to do his own work precisely, in a disciplined manner and with outstanding quality if the final result of this activity is an obsolete product that can be sold only at a loss.

We know that it is not easy to achieve differentiated recognition of individual work performance. The shop leaders who must change the harmful practice do not have an easy job. But we cannot accept incompetence and temporization. We must finally face the fact that even though differentiation can cause contradictions within the place of work an uncritical evaluation of performance and the levelling which results from this are causing socially significant damage.

We must guard against any sort of onesidedness in this question too. It will not strengthen the discipline which is indispensable for efficient work if earnings are independent of real accomplishments. But it is just as much a mistake if we want to recognize better than average performance in a material way only and force into the background the forms and possibilities of moral and professional recognition.

More Rational Use of Manpower

It is a fundamental condition for the development of the people's economy--and thus for a solution of the manpower problem--that we direct manpower and material resources to those areas where they will ensure better than average economic results, where they can be well used. Of course this does not mean that we will mobilize great armies by some national action as if by command. Disregarding unique cases we must start from the fact that manpower is always on the move in society without any special measures, it is constantly being "regrouped." Every year in Hungary more than one million people take up a job which is new for them. Among other things the magnitude and direction of this movement is determined by the school system, by where jobs are created or abolished and how many, by the nature of earnings and working conditions, by the transportation and housing situation, and so forth.

If we want people to work where their work will be effective it is not absolutely necessary to "regroup manpower in an organized way", rather we must create favorable conditions and circumstances in those places where an increase in personnel is in the interest of the people's economy. In this way the workers will be guided by their own will and in their own interest to those places where society has greater need of their work--as compared to their former place of work.

The realization of the normative principle in our regulator system produces good conditions for the use of methods which will guide the manpower being freed within movement frameworks regulated in accordance with social interests. In addition it will aid individually initiated movement to better correspond to the needs of the people's economy.

There are simpler methods too but we have said unjustifiably little about them recently, and have used them even less. An example is when we "regroup" not the manpower but the activity. We can change the product structure in a given producing unit where the conditions for this are guaranteed--including the available manpower--and the workers undertake the restraining or further training which may become necessary. In justified cases enterprise organizational measures can facilitate a planned regrouping of manpower--in accordance with our desires.

It is important to turn special care to seeing that we do not reproduce our tensions at an expanded level by investment and development decisions pertaining to the future. The manpower situation should not be simply a consequence of these decisions, it should be one of the essential factors influencing these decisions. We should always consider whether we have sufficient and appropriate manpower for the development of this or that area, otherwise efficient in itself.

The contradictions of the manpower situation and the perversities of manpower management cannot be eliminated by labor affairs measures alone.

A precondition for this is that planning, guidance and regulation serving economic policy goals turn greater attention than heretofore to effective employment of manpower--together with maintaining full employment. Employment policy points of view and requirements demand a significant change of attitude in developmental policy. It is still common for developmental proposals to calculate on a labor force which really cannot be produced.

It is a precondition for effective work that the workers do work corresponding to their training and abilities and under appropriate organizational conditions. A static and absolutized interpretation of this requirement gives rise to much misunderstanding. We do not mean that we must adapt to already acquired training and previous spheres of work always and under all circumstances. The structure of the economy is changing and the structure of the social division of labor is changing accordingly. So we have an ever greater need for the workers to adapt flexibly to the new circumstances, to be ready and able to satisfy the changed requirements, to undertake retraining and further training in accordance with their individual abilities and inclinations.

Flexible Adaptation to New Conditions

The training and preparation of those just starting work must be developed in accordance with the requirements of the age too. We must see to it that the students get substantive and convertible basic training in trades which embrace a broader sphere of work activity and learn to work at the level expected of those starting their career. We must see to it in an organized way that those already in a work relationship deepen and specialize their training within the framework of adult education, exchanging their obsolete knowledge for new information corresponding to the requirements of a changing production structure and new technology. We must see to it that, if need be, they get training in related or other trades and that the best of them can become master workers or shop leaders with the aid of training. Nor should we forget that training and further training not only develop their professional expertise but also play an important role in developing their world view, view of life, behavior and culture.

Speaking of possibilities and methods for solving the problems which can be found in the manpower situation we must mention an almost incomprehensible idea. According to some the best method would be for us to create a controlled army of the unemployed. According to them this solution would be the remedy or the force which would prompt everyone to better work and teach people to value their jobs because in some cases they could lose them. We must say that those who recommend this are really turning to a practice which derives from social and economic relations entirely different from ours. It is my conviction that "controlled unemployment"--which is unacceptable and diametrically opposed to our policy--would produce no results economically either. Only a real demand for work, not fear of unemployment, can be the basic factor for development and progress in socialism.

Methods and conditions which prompt an improvement in organization and a rationalization of production and employment can only provide the frameworks. Human activity gives them living content. The development and modernization of the economy, its link to science and providing it with modern technology are accompanied by an increase in the human role. In the final analysis results depend on human behavior and work.

Economic guidance has three basic elements--planning, regulation and the organizational or institutional system. Not one of these can be made independent of man because the basic factor in planning, regulation and the organizational system is man, the worker and the leader. This is true because in the final analysis the chief goals--constantly raising the material and cultural well-being of society, creating conditions which make possible the development of the personality, constantly increasing the productivity of work--are realized through their activity. Keeping this constantly in mind we can develop conditions in manpower management --and in management as a whole--which are good for us, which profit us all.

8984
CSO: 2500

CHANGES IN REGULATION OF TECHNICAL DEVELOPMENT FUND HIGHLIGHTED

Budapest MUSZAKI ELET in Hungarian No 23, 16 Nov 79 p 3

[Article by Dr Janos Herceg: "Changes in the Technical Development Fund"]

[Text] The new decree, regulating the formation of a company technical fund, its use, accounting, is effective on 1 Jan 80. It will produce a better synchronization among the resources for technical development and the real needs.

Previous surveys and analyses show that the practice of fund formation produced many unfavorable effects. The most important of these effects is that the price modifications due to the government the companies, occurring with increasing frequency, often affected the financial bases that were forming in a manner that was different from the plan. The same effect was caused by the lack of cooperation between the companies. Sometimes the expansion and cooperation differs from the plan. These factors and the accumulation formation method of the funds had an upward effect on the prices.

The Formation of the Fund

A new solution was created to form technical development funds. It essentially eliminates the shortcomings that have been uncovered. The effect of the main rules that have been revealed so far will be to end the exceptional financial interventions: budget cuts, use of the central technical development fund for other purposes, etc. Such exceptional interventions can in the future occur only if financial synchronization of the funds and the plan requires them. Finally, it was also necessary to adjust the modification directive to the 1980 plan production price and regulatory system.

Since the regulation distorts in several ways--which is undesirable--the state support which cannot count on sales income will have to be left out of the calculations.

Presently, small amounts of technical development funds are formed in many non-industrial companies. In general, the unused funds increase every year in these units because they cannot use the money in accord with the goals. To simplify the fund-generating method, compulsory technical fund formation will be abolished from 1980 in the non-industrial branches (except in agriculture) and the industrial cooperatives. These units decide for themselves in the future whether they want to form a technical development fund and, if they do, to what extent.

In agriculture the technical development fund that gets its increments from the industrial activity will be centralized by the ministry which will use it for research and development that is connected with the basic activity of this economic branch.

There are industrial cooperatives--mainly in the machine industry--whose technical development activity is significant even on the national level. In these cases the appropriate ministry will be authorized, with the concurrence of the cooperative's representative organization (OKISZ) to regulate compulsory fund formation.

Accounting Techniques

In general, the modifications of the enterprise technical development budget calculations will have to be made in 1980. As the basis of calculations, the direct material-free sale price income (marketing income minus direct material costs) shall be used. This net accounting base does not have an accumulated price increase effect when compared to the present gross income. The formation of the technical development fund basically better links the value added [price] to the actual labor of the enterprise. In economic terms, it is almost identical to the "added value" [price].

The amounts of technical development funds will continue to be regarded as a minimum compulsory costs. The enterprise must generate at least that much technical development funds.

A significant change pertains to the switch in technical development fund formation from product accounts to branch and company accounts. This will produce norms and make enterprises more independent because the industrial branch or company technical development account can produce differentiated enterprises accounts. The new technical development fund generation method also lowers the administrative burdens of the enterprise.

The new calculation base and the technical development budget will be of a size to produce resources that are in line with the research and development plans and the nation's load-bearing capacity. It will fund company and central technical developments.

The size of the account must be determined according to efficacy, technical development, structural-political goals and, preferably, by branch levels. In certain areas (e.g., machine industry) there are enterprises whose activities are quite different from that of others in the same ministry. Therefore, their need for technical development is also quite different. This supports the diversity of branch accounts. The authorities have to determine where to use branch and where to use enterprise accounts. In the end, each enterprise will have only one technical development account number.

In order to help the change in product structure and increase the elasticity of the price system, the enterprises will have the right to use the centrally-mandated account in differentiated ways for at least a five-year period in accord with their services, activities, prices, and technical development goals. The differentiated product accounts will assure that at least the minimum fund, as determined by branch and enterprise measures, will be established. If, as the result of differentiation, more money is generated in the technical development fund than is mandated then this higher amount (or effective amount) has to be placed in the fund since the money will be recovered in the sales price. If, due to differentiation, the fund generated is lower than mandated at an enterprise in a given year, the difference (or missing amount) has to be counted against the profit and must be placed in the enterprise technical development fund.

Hence, the modification of the enterprise technical development fund for the most part will be implemented by 1980 and fully by 1981, with the beginning of the Sixth Five-Year Plan.

Outside of the Industry

In the construction industry, the proposed changes will form an organic part of the modification of the construction industry price formation planned for 1980. Thus, the new method of creating a technical development funds can be used already in 1980.

In a few branches (coal mining, electrical energy generation, building material production, etc.) the calculation base change can also start in 1980 because this assures the planning of the national and enterprise Sixth Five-Year Plans. The 1981 measures have to be made in areas where the change to net projection will cause important uncertainties--i.e., in the processing industries. Here the new calculation base can only be safely used in 1980 because it involves new production costs and pricing and costing methods.

It is possible to determine the branch ratios and extent of centrality of the technical development funds and their creation as the preparations of the Sixth Five-Year Plan continue.

The accounting and payments concerning the technical development funds as before will be the responsibility of the Finance Ministry. It assures that the supervising ministries receive their central technical development fund payments at the correct rate and prevents the use or commitment of monies at the enterprises for other purposes.

10101
CSO: 2500

PLANS FOR PETROCHEMICAL INDUSTRY OUTLINED

Budapest NEPSZABADSAG in Hungarian 3 Nov 79 p 6

[Interview with Deputy Minister of the heavy industry Istvan Zsengeller, by Edit Soter: "Billions to be Recovered"; date and place of interview not given]

[Text] Part 3. The Future of International Cooperation

Our previous two articles provided a picture of the Fifth Five-Year Plan's time period's most significant petrochemical accomplishments, and about the use of ethylene and propylene, products of the olefin factory. But we did not talk about the plans and ideas outlined for the time period of the next five year plan by the Tisza Chemical Combine and the Borsod Chemical Combine, the enterprises playing the main role in petrochemical development. Considering that the continuation of petrochemical development requires these plans and ideas to be coordinated with and in tune with the national economy's financial resources, we asked deputy minister of the heavy industry Istvan Zsengeller for information about the near and distant future.

Five CEMA Agreements

[Zsengeller] Before I would talk about the development plans of the future--the deputy minister begins--, I would like to prove the already recognizable results of using the olefin products with a few additional facts. That is, besides the ethylene and propyleneother well usable products are also produced in the olefin plant. The so-called C_4 and C_5 fractions are valuable raw materials for the production of synthetic rubber; within the framework of international cooperation we sell the C_4 to the Soviet Union and the C_5 to Romania. In trade we receive synthetic rubber for them which is used by the Taurus Rubber Industry Enterprise. We thus save the extremely costly investment of producing manmade rubber.

The olefin plant has still another valuable product: pyrobenzene. We made good use of this in the past also to improve the octane number of motor fuel. But it is even more profitable to further process the pyrobenzene to make so-called aromatic raw materials in the organic chemical industry, mainly benzol. The installations necessary for this will be completed this year at the Tisza Chemical Combine and at the Dunai [Danubian] Petrochemical Industry Enterprise. Considering that the price of benzol is more than twice the price of good quality gasoline, as a result of the development we can improve the foreign currency balance by a significant export value.

[Question] If my addition is correct, the petrochemical developments are supported by four international agreements: first of all the Hungarian-Soviet olefin agreement, the Hungarian-Polish polymer agreement, and the Hungarian-Soviet and the Hungarian-Romanian rubber agreements.

[Answer] There is also a fifth agreement. That is, the olefin cooperation also affects the development of the manufacture of synthetic fibers. In exchange for our ethylene and propylene sales we receive various chemical products from the Soviet Union, acrylonitrile among them, which is processed by the Hungarian Viscose Factory in Nyergesujfalu into polyacrylonitrile, or PAN fibers. Receiving the Soviet raw material has made it possible for us to build a plant of profitable size as the third major investment of petrochemical development during the Fifth Five-Year Plan, which is producing PAN fibers in excess of the quantity needed domestically. We sell the excess to Poland on the basis of a long range international agreement, and in exchange we receive cut polyester fiber, which is then in turn used by our textile industry. Obviously the textile industry needs very many kinds of chemical fibers, and we cannot set up to produce the entire range of selection, thus only selective development, specialization, integration can be the way to satisfy the needs. The Hungarian-Polish fiber agreement is a good example for this.

Converting Is the Weak Point

[Question] In the Fifth Five-Year Plan we spent a signficant portion of the Hungarian national economy's investments on petrochemical developments. Will these billions be recovered?

[Answer] During the time period of the Fifth Five-Year Plan the total cost of developments of the three major facilities: the polypropylene, the PVC and the PAN plants, and of the synthetic materials conversions is about 20 billion forints. Besides state contributions, the expenditures by the enterprises and credit are also included in this. As far as recovery is concerned, this could be demonstrated only by very complicated calculations. Any way, it is a fact that the petrochemical facilities built thus far will produce 27.5 billion forints' worth of production this year. I wish to add that the two major plants completed in 1978 have not, could not have achieved full use of their production capacities in their first year of operation. Of the 27.5 billion, 21 billion is used domestically, 2.5 billion for socialist export and 4 billion for capitalist export. Thus besides the traditional branches producing for export, such as for example the pharmaceutical industry, the petrochemical industry with its signficiant economic export is fulfilling an increasing role in the heavy industrial export.

[Question] There seems to be a contradiction here. Even though our growing petrochemical facilities are exporting more and more, yet at the same time the import of synthetic materials is costing several tens of millions of dollars to our foreign currency balance. Why is this so?

[Answer] The reason for the contradiction is that domestic conversion of synthetic materials is lagging behind the production of raw materials. Originally the petrochemical development program projected the use of 440,000 tons of synthetic materials for 1980, but this had to be corrected in several steps due to the world market changes which occurred in 1973. It can be seen that we will not even reach the use of synthetic materials decreased to 370,000 tons. The national economy needs very many kinds of synthetic materials and finished products, which we must obtain no matter what, therefore we import them. The value of imports in 1978 for example amounted to US$63 million. Thus it is very important for us to moderate these expenses by means of profitable exports. Obviously it would be much better and much more profitable to convert the raw materials to more valuable products, thereby eliminating the imports, and finished export products, since the price of one ton of polyethylene is US$ 900, of one ton of PVC US$ 800, and of the converted finished products US$ 2,000 per ton on the average. We can save a significant part of the US$ 63 million expenditure by developing the domestic converting industry, but the other part of the expenses will remain because we cannot produce each kind of synthetic materials. However, we can counterbalance the costs of imports by exporting products for the mass production of which we specialize.

[Question] After these, could we hear something about the ideas for the future?

[Answer] After the basic facilities are built for the development opportunities of our country's petrochemical industry, these further steps will in essence exist. We know which production branches can be developed and how. We know the products, the needs and the possible ways of international cooperation. What steps will be taken, and at what speed, depend on the country's investment potential.

The Main Direction of Development

[Zsengeller] Yet, somewhat more specifically--Istvan Zsengeller continued--: the main direction of development continues to be determined by the Hungarian-Soviet olefin cooperation. It is general knowledge that over a ten year [period] the Leninvaros [Hungary] olefin works will send 130,000 tons of ethylene in pipelines to Kalus in the Soviet Union, where a large scale plant was built to produce plastic base materials. This same olefin plant provides the raw materials for the domestic production of polyethylene, polypropylene and PVC. Thus the production of not only the 30-billion-forint-value objective depends on it. It needs no explanation how great a responsibility and risk this is. The Hungarian and Soviet experts are studying it, keeping in mind the operation's economic and techncial safety requirements, when it might be expeditious to build another, large capacity oelfin plant, and to increase the safety of production by this. Continuation of the Hungarian-Soviet cooperation is becoming outlined on the basis of negotiations, by way of the possibility of building a large capacity olefin plant in Kalus, and as continuation of the agreement negotiated originally until 1985 the direction of shipments would reverse in the pipeline, Kalus would send ethylene to Leninvaros, in exchange for various chemical products.

Based on what was said above, expansion of polyethylene and polypropylene production in Leninvaros and vigorous development of the production capacity may take place. This is where the domestic needs lie. But the BVK's [Borsod (megye) Chemical Combine] PVC plant can meet the domestic demands even over the longer range. Converting capacity must be built at a faster rate both at the BVK and also at the plastic converting enterprises and cooperatives in the other heavy industries and at the ones belonging to the other portfolios. It is expeditious to continue the sales of the C_4 and C_5 fractions within the frameworks of the Hungarian-Rumanian and Hungarian-Soviet agreements, and to thereby obtain the manmade raw rubber needed for domestic rubber production. Negotiations are also in progress to clarify the possibilities of extending the Hungarian-Polish chemical fiber agreement. Both parties are interested in maintaining the cooperation, and to modestly expand it.

In conclusion I will mention another initiative which has great promise. It has already been mentioned that processing the olefin plant's pyrobenzene to other aromatic materials generates a large profit. In the future we will continue this avenue of development even more vigorously. Besides the Danubian Petroleum Industry Enterprise, the Tisza Petroleum Industry Enterprise will also accept a significant role in building up the organic chemical industry. They will produce so-called intermediates for the pharmaceutical and vegetation protection chemical industries, making the raw material supplies more secure for these two industrial branches which are capable of producing much for export, at the same time saving significant amounts of import by this. The BVK may also join in this work: it can make good use of its high capacity chlorine plant, built with the PVC investment, for the production of vegetation-protecting chemicals and plastic raw materials.

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CSO: 2500

RESERVES IN FERROUS METALLURGY CONSIDERED

Budapest NEPSZABADZAG in Hungarian 4 Nov 79 p 3

/Article by Nandor Karlik, director general of the Hungarian Iron and Steel Industry Association/

[Text] Ferrous metallurgy plays a significant role relative to industry as a whole. The output of this sector represented 7 percent of gross industrial production in 1978. Its products are used in every area of the national economy. Nevertheless, the activity of the sector is highly capital, material and energy intensive. In terms of capital intensiveness, the sector occupies third place, behind electrical energy and chemical industry. 60 percent of production costs is the cost of materials and 12 percent is the cost of energy. As a result, there is a wide room for practicing economy.

The enterprises belonging to the Hungarian Iron and Steel Industry Association have always placed great emphasis on economy. The 11 member enterprises planned for savings of 380 million forints last year; in fact, they achieved savings of 410 million forints. In particular, the Ozd Metallurgical Works, the Lenin Metallurgical Works and the Duna Iron Works together saved 307 million forints. However, not all reserves have been exhausted yet. This requires, on the one hand, the adoption of measures which could bring rapid results without excessive spending, coupled with an early start on the preparation of measures to be implemented during the Sixth and Seventh Five-Year Plans. The latter group of measures will lead to greater savings but would, at the same time, require sizable investments.

What do I have in mind? For example, according to international calculations, creating the capacity to make one ton of steel costs 600 to 1,100 dollars. With this in mind, we need to pay more attention to the manufacturing of more valuable secondary and tertiary products (e.g., sheet radiators and steel cables) at the Lenin Metallurgical Works, the Ozd Metallurgical Works and the Duna Iron Works, where these capacities have already been created. This would make the operation of these enterprises more profitable, while at the same time leading to better utilization of investment resources.

Warning Numbers

In ferrous metallurgy, the greatest savings may be obtained through improved material efficiency. At present, we need 1,230 kg of unrefined steel to make 1 ton of finished rolled steel. By building the continuous casting works already scheduled, we will be able to reduce the quantity of unrefined steel needed by approximately 60 kilograms. Savings of 20 kg per ton can also be obtained in forging. This may lead to savings of hundreds of millions of forints every year.

In addition, we should be able to achieve savings in auxiliary materials. The useful life of casting moulds used in the steel foundries, imported electrodes inside electric furnaces and rolls of rolling mills can all be increased by paying more attention to technical specifications. Savings may be achieved just by precise weighing of auxiliary materials. A one percent saving of auxiliary materials will mean almost 2 million forints.

Collection of steel scrap, commonly called scrap iron, is also very important. Steel scrap is a highly regarded base material in ferrous metallurgy. To replace scrap steel from industrial plants and households (which is not completely feasible due to reasons of manufacturing technology) would require 40 dollars worth of import ore to substitute for one ton of scrap steel. This does not include the cost of making unrefined iron. Yearly collection and processing of outside scrap steel can be estimated at 1.2 million tons nationally. This operation should be better organized; seller's incentives should be increased and the mechanical equipment of TEK [Capital Equipment Marketing] enterprises should be improved.

Improved product quality is also an organic part of economical operations. The Ministry of Metallurgy and Machine Industry pays close attention to quality trends every year. Studies show that the rate of increase in damages due to quality deficiencies exceed the rate of increase in sales: this should serve as a warning to all enterprises. Experience shows that frequently there is little or no penalty for causing damages within the enterprise. More careful, disciplined work is needed. To this end, we must complement the development of technological conditions with increased emphasis on material and moral incentives as well as individual accountability.

With Smaller Inventories

Regulating inventories in ferrous metallurgy will also result in savings. There is a problem when inventories are large and their composition is less than ideal. The same is true for our iron ore inventories which exceeded 2.6 million tons at the beginning of the year. We have quite enough; in fact, we have more than we need. On the other hand, our inventories of coke-oven coke are down to about 140,000 tons. This is insufficient to cover our requirements; the shortfall can only be covered by costly purchases in capitalist markets. Our stocks of refractory materials, ferro-manganese and molybdenum alloy materials are low. It may seem strange, but we do not have enough scrap iron in stock, although quite a lot of it exists all around the country.

The average value of our stocks rose in accordance with expanding production. The turnover rate of inventories varies among enterprises. The average is 77.2 days. In the Ozd Metallurgical Works [OKU] the rate is 58.1 days, in the Duna Iron Works [DV] it is 76 days and in the Lenin Metallurgical Works [LKM] it is 69.4 days. In smaller metallurgical enterprises the turnover period is even longer. To put it mildly, inventory management is not one of the strong suits in our operations. purchasing is not easy: socialist imports are, to a large extent, dependent on the shipping ability of the partner in question and capitalist purchases are made more difficult by rapidly increasing prices. On the other hand, enterprises must take care not to keep excessively large stocks on hand, since this leads to unnecessarily tying up their financial resources. The time for assuring excessive safety is over: this practice is inconsistent with rational economic operations.

The sector of ferrous metallurgy requiring the largest amount of energy is unrefined iron production. Almost 6 million Kcal is required to produce a ton of unrefined iron. Among others, we use 690 kg of coke per ton of unrefined iron. It follows that this is the area where energy saving measures must be encouraged. The high rate of coke consumption is mainly due to the fact that we are smelting low grade ores: this is our greatest problem. Our furnace stock contains only 44 percent iron: in highly industrialized countries the iron content is 53 to 59 percent. By the end of the next plan period we would like to raise the iron content to at least 50 percent, primarily through cooperation and assistance from the USSR. By doing this, in addition to increasing the temperature and oxygen content of the air used in blast furnaces, we will be able to use 90 kg less coke to produce a ton of unrefined iron. At current coke prices, this would represent yearly savings of more than one billion forints.

In the near future the Duna Iron Works and the Lenin Metallurgical Works will shift their blast furnaces over to evaporation cooling which will save energy. The energy savings here will be equivalent to 12,000 tons of heating oil, assuming one blast furnace at each site. The coking plant of the Duna Iron Works will be renovated with the help of the USSR; they will also introduce dry coke slaking. In traditional wet slaking the thermal energy of the coke is extracted together with the cooling water. With dry slaking, however, there is no contact between the coke and the water; thus, thermal energy is preserved and may be utilized. This will lead to energy savings equivalent to 36,000 tons of heating oil, i.e., 180 million forints per year.

Use of time in ferrous metallurgy may be considered from two viewpoints: we may approach the question from the side of equipment or the men performing the work.

The productivity of our equipment and plants varies widely in terms of world standards. Productivity in our new plants and factories is at or near the level of similar size production facilities in industrially developed countries. Some examples include the Borsod ore preparation works of The Joint Enterprise for Preparation of Metallurgical Base Materials or the new wire and bar rolling mill of the Ozd Metallurgical Works. The situation is even better at our new facilities currently under construction, such as the new steel works at the Duna Iron Works and the Ozd Metallurgical Works. There are, however, a lot of old metallurgical plants. Their efficiency varies from satisfactory to low; their share in total production is being reduced very slowly.

Our inefficient use of time is illustrated by the fact that per capita production is rather low in comparison with international standards. (The accepted indicator is the ratio of yearly unrefined steel production to the number of employees). Up until the middle of the 70's this indicator stood at 43 tons per capita in our country; in Czekhoslovakia it was 83.6 tons per capita, in the GDR 126 tons per capita. The U.S. indicator is 200 tons per capita. Japan achieved the best result at 350 tons per capita. Our present level is 59 tons per capita, which is undeniably a step forward relative to our earlier results. However, the international comparisons show that our lag is still quite substantial. This lag is only partially explained by the smaller size and relative obsolescence of our facilities. There are a great many deficiencies in work organization and the situation with regard to work discipline is also unsatisfactory. These are the areas where we can develop substantial reserves and achieve savings.

Value From Slag

With today's continuing increases in material prices, waste management is becoming increasingly important. Slag has been accumulating on slag heaps for many decades at the 3 metallurgical plants which have blast furnaces (LKM, OKU, DV). Technical studies estimate the amount of usable waste within the area of metallurgical plants at several million tons. The Duna Iron Works and the Ozd Metallurgical Works have already studied the metal, refractory material and other usable raw material content of the slag heaps. It turned out that 250 to 300 forints worth of materials per ton can be extracted from this waste. The cost of machinery needed for reprocessing is paid back many times. At the Duna Iron Works they intend to start slag reprocessing next year.

We must continue to study other possibilities. We must work more closly with scientific institutes and universities in order to be able to utilize the latest scientific achievements in the interest of efficient operations. In this area, we are hoping for a positive change as a result of the recently adopted decree of the Council of Ministers aimed at improving cooperation among institutes and enterprises; we hope that this will accelerate the practical applications of research and development results.

We mentioned only the most important areas related to the central goals of efficient operations. The workers of our metallurgical enterprises proposed to honor the twelfth congress of our party not by quantitative overfulfillment of production quotas but by improving the efficiency and productivity of their work.

The political and economic leadership as well as the worker collectives within ferrous metallurgy are unified in concentrating their attention and resources on the same areas; this provides assurance that results are bound to follow.

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CSO: 2500

NEW PHASE OF INVESTMENT POLICY ANALYZED

Warsaw NOWE DROGI in Polish No 10, Oct 79 pp 5-17

[Article by Kazimierz Secomski, deputy chairman of the Council of Ministers: "A New Phase of Investment Policy"]

[Text] Investment policy in the 1971-1980 decade stood under the sign of a high growth rate and momentum of investment activity during the first quinquennium (1971-1975) and thereafter effective cooperation in the execution of the economic maneuver in 1976-1979. Broadly speaking, the formation of the volume of investment expenditures in the first half of the 1970s assured annual growth records, reaching up to 18.5 percent, whereas in the second quinquennium initially a sharp reduction of the growth rate to 2-4 percent occurred and then, in 1979, a powering of total outlays by about 10 percent was envisaged. Thus, into the second five-year period a stabilization of the attained level of investment began and even a certain lowering of this level.

At the same time, a significant restructuring of the investment plan occurred in the second five-year period. The execution of the economic maneuver required corresponding shifts in the directions of investment activity pursued until then, especially with respect to raising the growth rate of investment in such fields as agriculture and the food economy, housing construction, and the requirements of the domestic market and of foreign trade. From this point of view investment policy has been subordinated to the primary guidelines of the economic maneuver.

Simultaneously it must be stressed that within the compass of investment policy itself further-reaching changes had to be achieved, without breaching the directions set by the economic maneuver, in order to overcome investment tensions that had been created and to achieve a mutual adjustment of a number of processes: investment productions, the structure of outlays, and the capabilities of design and construction-installation units.

At the present time, we are faced by the necessity of formulating the targets of a new phase of investment policy for the years 1980-1985. It must be explicitly stated in this context that a number of adjustment processes are still in the course of implementation, in part for the sake of completing the economic maneuver and of extending its directions on a certain scale for the next few years. But on the other hand, the changes in the domestic and external conditions of economic activity and the difficulties which continue in many fields require the assumption of new tasks, and this also in the sphere of investment policy. Obviously, the determination of the assumptions, directions and structure of investment policy for the nearest future will require further discussion and a close integration with the entirety of targets for the next five-year plan. Nonetheless, it is necessary to spell out already now many of the basic conclusions indispensable for the formulation of a comprehensively considered new phase of investment policy.

The first of the general assumptions in the investment sphere is the basic decision on a more moderate growth rate of investment outlays. An analysis of the rate of increase of national income for the next few years plainly indicates the strong limitations on the possibility of achieving growth in the volume of investment. In particular, the requirements which have already been determined in connection with the division of national income [between consumption and accumulation] and with social development point to the existence of only small possibilities of raising the annual investment outlays.

In this context, we cannot avoid stressing the fact that the overall volume of investment attained in recent years is beyond doubt quite high. Its utilization for the basic and most pressing directions of development requires a consistently applied investment discipline and the concentration of outlays with a view to assuring the implementation of priority tasks. By the same token, there is no room for the satisfaction of many needs that continue to be pressing, both in the sphere of the development of the material base and in that of the further expansion of the compass of social requirements.

Apart from decisive moderation of the growth rate of investment outlays, a second fundamental assumption of investment policy for the upcoming years needs to be underlined. What is at issue is that the results of investment operations should exert an effective influence on a more rapid harmonization of the development of the economy, and in particular on the coordination of the consequences of the economic maneuver which has been executed. This maneuver required radical changes in the directions and structure of investment, whence arose unavoidable disturbances or even transitory disproportions in the structure of development which now need to be mitigated or balanced in an appropriate fashion, in part through investment operations. The implementation of this task is logically linked to the final stage of the execution of the maneuver and to the simultaneous transition to some new tasks of the ensuing period.

This third general assumption [of investment policy] will issue--in already fully developed shape--from the specific tasks of the five-year plan for 1981-1985. There is no doubt that development in that period will assume a new character and that above all its qualitative features will be different. The Polish economy is at the point of entering into a phase of much more modern development in which elements of management efficiency will become decisive, starting from the quality of work, of production and services and of the utilization of fixed assets and materials, and extending to the quality of the standard of life.

Finally, as the fourth general assumption of the new phase of investment policy we must mention important changes in the very sphere of the investment process itself. This part of investment policy is composed of an entire bundle of shifts, of which at least several of the basic ones specifically require an analysis in depth.

Thus, independently from the fundamentally changed structure of investment outlays and directions, under the condition of reduced possibilities in the sphere of investment growth we must as a general rule abstain in the next five-year plan from the construction of large complexes and new plants and push to the fore the primary thesis of modernization, small-scale supplementation and indispensable reconstruction of existing plants, and frequently a basic renovation of their equipment. This radical narrowing of the front of new investments and the general substitution of the implementation of small and sometimes medium-size undertakings for the construction of large plants all at once opens excellent possibilities for much more rapid and altogether more significant economic effects, for the investment cycles will be markedly reduced and the gestation period of outlays and the waiting period for production and service effects will be substantially shortened. This permits a corresponding acceleration of the growth of national income, a fact which in this period will have a particularly important significance in view of the pronouncedly lower growth rate of its annual increments.

Obviously the large investments in the preceding period, and in particular the construction of great industrial complexes, resulted from the necessity of creating modern sectors and new branches of the material base. The passage of the Polish economy to an correspondingly higher position in the world, especially in the industrial sphere, was associated with a need for the construction of large complexes and the simultaneous exploitation of the borrowing opportunities existing at the time.

In the coming new phase of investment policy the substantial additions to fixed assets must be appropriately set to productive use, including the exploitation of the large production capacities gained in the new complexes. This will in many instances require supplementary investments which individually will be of smaller dimensions but which will be indispensable for the comprehensive exploitation of the newly created complexes of fixed assets.

In the course of the next few years a substantial investment effort will in any case still be required in order to complete as fast as possible the large investment projects still under way and at the same time to put into economic use the substantial stocks of machinery and equipment which have been accumulated and are awaiting installation. Nevertheless we are entering now into a period of a rigorous reordering of the structure of the investment plan according to criteria based on the implementation period of individual undertakings. As a guideline it is assumed that within the compass of the total investment plan investments with an implementation cycle of more than 3 years should fluctuate at about one-third of total investment outlays. Medium-term investments with an implementation cycle of 1.5 to 3 years should likewise constitute about 33 percent of the total volume of outlays. The remaining third must be reserved for short-term investments, mainly modernization investments, with an implementation cycle not exceeding 1.5 years. However, present estimates of the dimensions of long-term investments (with a cycle longer than 3 years) indicate that their share exceeds 60 percent of the plan. This signifies a substantial tying down of future investment funds, and also a corresponding lengthening of the gestation period of outlays.

In result of the decisive curtailment of the front of newly started investments the next two years should be bringing about an appropriate shift in the structure of outlays prevailing until now. To this end it is indispensable that there be a consistent adherence to the thesis of a definite priority for modernization investments and investments serving the complementation and necessary reconstruction of existing plants. Only in special cases will the construction of new shops and of indispensable co-production units be necessary. In industry itself the share of modernization investments, which now on the average constitutes about 30 percent of total investments, should markedly exceed 50 percent of the overall sum of outlays. A share of modernization investments of this order of magnitude is considered minimal for industrialized countries.

Analogous trends should be assumed also in other sectors of the economy, obviously with the necessary exceptions for some branches such as power generation, railroad transport, or special raw material investments. A separate treatment is of course required for some construction activities in the consumption sphere, including in particular housing construction as well as hospital and school construction.

The thesis which thus emerges calls for an economic approach to the issues of the comprehensive introduction into productive operation and utilization of the fixed assets already laid down throughout the economy. These highly modern installations arose in result of the large investment efforts of the last decade. In order that the productive and service capacities that have been created will be appropriately put to economic use, it will in practice be necessary to assure a pronounced priority for complementary investments which in many instances constitute the condition for the attainment of the full benefits. These complementary fixed assets and additional outlays required for a more rapid reaching of the designed production and service capacity levels will at the same time permit the obtention of much faster effects for economy and society. This also requires the displacement of directions of activity hitherto prevalent, and even of mind sets and habits which are universal throughout the economic apparatus. The spotting of possibilities for the attainment of more immediate and by the same token more significant benefits for the economy requires in every sector a careful scrutiny of the possibilities for modernizing the productive base, but not its expansion by new--and especially by large--installations.

This modernizing course is closely linked to the utilization of the complementary investments for raising the quality of the goods and services produced as well as for raising the quality and productivity of labor. In this context substantial support can be obtained from the effects of a developed system of staff training and the further augmentation of its professional qualifications.

On the background of the general assumptions and the transformations of investment policy described above it is now possible to outline the concrete tasks arising for the investment policy of the next few years. For within the limits of the much more modest possibilities of total investment outlays it will be necessary to maintain their continued concentration on the task of solving the main socio-economic issues. The shift in investment structure and directions is directly linked to the general problems of the next five-year plan period and the necessity for a resolute implementation of thrusts undertaken and strengthened in the economic maneuver.

At the head of the tasks of particular significance we must at this time put the investment thrusts which serve the breaking of the foreign trade barrier to the growth processes of our economy. The priority ranking of this thrust of investment activity results from the general premises of the reestablishment of external economic balance, and in particular from that of satisfying the growing needs of the economy for imported raw materials supplies. Curtailments and sharp restrictions in the sphere of imports have been and continue to be a necessity in current foreign trade policy. However, our strongly developed industry, and also our needs in the field of the food economy, including the grain and feedstuff imports, exert an immense pressure towards an expansion of the import of many goods of basic significance. At the same time the priority ranking of export tasks, which constitute the obvious underpinning and guarantee of an expanding import volume, has for long received considerable stress. For these reasons investments which assure a more rapid increase of exports should obtain the highest ranking. It seems that modernization or complementary investments in industrial plants which make possible an increase in the level of high-value export production in the near future should above all be initiated and implemented on especially beneficial conditions. For this category of small and complementary investments the "green light" should be lit uninterruptedly throughout the year. We should provide additional facilitating privileges--especially in the framework of the WOG [large economic organizations] investment system--for individual decision-making on investments in the field of exportables, based also on specialization programmes and on long-run rates of return, but independent from global [investment limit] determinations. Such investments at the same time need the assurance of immediate privileges with respect to the pruchase of the required machines and equipment and also in the execution of the associated investment work, especially installation work. In the setting of the annual investment plans themselves the conditions must be created for a more rapid export specialization, and thus for the restructuring of entire sectors and enterprises, based on complementary investments, for the purpose [of exploiting] new or expanded export possibilities. There are indispensable organizational changes connected with this, including improvements in foreign trade itself and in the authorization of interested large plants and economic units to conduct export operations.

The second basic task of investment policy is an improvement in the management and use of materials. This is at the present one of the tightest economic bottlenecks which demands effective actions for a purposeful and parsimonious consumption of raw materials, energy and auxiliary materials. The prerequisite nowadays for the attainment of a marked reduction in the volume of materials necessary per unit of output is a great deal of investment. Consequently we must utilize to the widest extent possible investment activities which make possible an improvement in the employment of materials and energy. Such possibilities appear on a very broad scale in practically all economic spheres, whence derives the necessity for a comparative evaluation of materials-savings programs and the selection of the most effective investment projects, whose implementation must then be assured priority. It suffices to underline in a general way that both at present and also for the next five-year period the Polish economy disposes of greater capacities for industrial production than in the field of materials supply. An expansion of materials deliveries will not always be fully possible, but independently from that it is always necessary to push to the fore targets--including also investment tasks--for a more economizing consumption of raw materials, fuels and auxiliary materials, and by the same token for the achievement of greater production and for a complete utilization of existing capacities. This issue assumes particular significance in the present phase of economic development.

Speaking more generally we can formulate the above task, taken in the broadest sense, as the role of investment in the breaching of the raw material barrier to economic growth. The complex of investment issues in this field should in the first line comprise the investments stressed above which produce savings in the consumption of energy, raw materials and auxiliary materials. From this point of view the issue of the expansion of the railroad electrification program requires examination, or that of the modernization of the cement industry, above all with respect to the application of technical solution making possible radical reductions in the consumption of flowline fuel in wet process cement production. However, in virtually every sector of the economy investment directions of this type are tied above all to the implementation of sometimes even very small modernization investments which contribute substantial effects to materials management and use. Hence an important part of the technological and economic analyses are all innovations and possibilities of technical progress for the immediate curtailment of raw material consumption.

The now generally accepted concept of structural changes in industry as a whole with a veiw to constraining its energy- and raw-material-intensive production trends also links up with the above. This indicates the indispensability of a systematically implemented long-term program of changes in the structure of goods produced. The chief issue now has come to be the modernization of a great number of durable goods with a view to improving technologies in such a manner as to make possible a significant reduction in energy consumption.

At the same time the basic investments for the development of the domestic raw material base have to be continued. The fundamental element here is the ever wider exploitation of geological discoveries and known natural resources. In the present situation, and in face of the emerging perspectives of the world raw material economy, the strengthening of the domestic raw material base constitutes the basic underpinning of our development strategy. In a similar way the all-sided expansion of modern chemical industry must be considered to be among the basic development perspectives, including expansion with a view to obtaining various substitute raw materials of fundamental significance for a modern economy. Another development line which requires strengthening is the utilization of local and secondary raw materials, and also the implementation of investments for raw material reclamation as well as for the reclamation and re-use of many products. Typical examples here are some products of chemical industry, including tires.

The third task of investment policy for the immediate future to be stressed is an increase of the role of investment in the dissemination of new scientific-technical and organizational achievements. Obviously we will always stress the non-investment growth of labor productivity deriving from better organization, both at the individual and the collective levels. But as a rule modern organization of work requires investment complements, often of a small-scale character. Here too there arise the evident benefits of more rapid and more significant effects obtainable from the same fixed asset by virtue of improved organization of work. The achievements of science and technology play a markedly growing role in the higher phases of socio-economic development. Hence their rapid exploitation and the creation of the indispensable facilities and possibilities for the immediate realization of the achievements of technical progress must take place also in a favorable social climate, as well as under conditions of explicit privilegation in the financial and [investment] execution fields. This then gives rise to the necessity of devoting special care to the investments of the modernization type which have already earlier been accentuated.

Innovational dynamism is also a social phenomenon, but any marked development in this field requires concrete measures assuring real efficiency in the implementation of the scientific-technical and organizational achievements. It is therefore necessary to secure for modernization investment both the above-mentioned incentives and favorable social climate, and also correponding implementation conditions. Among these conditions, three in particular play a main role: favored treatment in the production and purchase of technical supplies, and thus of machinery and equipment for modernization; second, the organization of in-house execution of [investment] work, particularly as concerns the installation of machinery; and third, close linking of the research and development staff in plants and associations to the current needs of production and to the breaking-in of the technical and organizational achievements.

A matter which continues to require substantial efforts is the obtention of the expected effects from the continuous elevation of the technical endowment of work places. The investments already effected in this sphere, and also the future outlays, must be linked to critical evaluation and systematic measures with the goal of a decisive improvement in the relation between the increasing supply of equipment to labor and the actual increases in its productivity. In this field, too, the necessary investments of a complementary character must be given appropriate attention in the framework of the modernization programs.

The next task of investment policy is the matter of the expansion of installations serving social development, investments which are being implemented on a substantial scale. The tasks in this sphere are above all considered in direct connection with the assumptions regarding the growth of the living standard and the improvements of the quality of life. This relates both to issues in the sphere of individual consumption and to those of collective consumption. At the same it is necessary always to keep in mind the large influence which all these issues dealing with the improvement of the living conditions of the working people have on the dynamics of economic development. This problem is considered the basic achievement of socio-economic policy in the present decade, but at the same time it retains its unchangingly primary significance in the entirety of developmental processes. The needs of man and society, treated as the primary task of socioeconomic policy, constitute the basic point of departure for the shaping of its trends and for the concrete tasks in the national development plans.

The chief position in this context is assumed by investment policy tasks connected with the implementation of the long-range housing construction program and the program for the building of the associated municipal installations. Similarly the consistent growth in the building of health-care installations needs to be stressed. To whatever extent the volume of investment outlays has been insufficient in recent years in other social spheres (in the face of its general curtailment and stabilization), the construction of installations for the implementation of the reform of the educational system and in the field of culture and the remaining social areas has continued to develop adequately. The maintenance of this essential task of investment policy constitutes one of its fundamental components in the upcoming years.

On the other hand, the contemporary character of one of the key investment tasks has changed--the question of creating and assuring a large increase in new places of employment. It must be stated with the greatest emphasis that the policy of full--and then also of rational--employment has in the present decade contributed one of the main sociopolitical and economic achievements. We have succeeded, owing to the large investment program, to assure the absorption by the economy of the huge increase in the population of working age, and above all of the youth cohort graduating from schools of various types. The marked expansion of the material base has created numerous workplaces in production and in the services, thanks to which universal access to places of employment has made possible the solution of this key problem of social policy.

The following data clearly express the scale of the fundamental changes on the labor market and in the program of preparing new workplaces:

Labor supply increments (in thousands)

	1971-1975	1976-1980	1981-1985[*]
Labor supply increments, total of which:	1,530	800	450
[Gross increment], working age	1,635	1,100	700
Losses to the non-working age	-105	-300	-250

[*] Data for 1981-1985 are preliminary. In case of a faster retirement of the post-working age rural population, the net increase in the total supply may even turn out to be significantly lower.

As the above table indicates, in the upcoming 1981-1985 quinquennium less than one-third of the 1971-1975 number of new work places (net) must be prepared. This clearly points out the fundamental change of the situation in the sphere of investment policy directions. In the face of a general need for personnel in many socio-economic fields we must now take up a number of measures to reduce the labor-intensity of many processes with the aim of balancing the requirement for labor with the possibilities for meeting it, especially in the large urban and industrial centers. From this point of view the greatest significance adheres to a more rapid mechanization of auxiliary work, the degree of mechanization of which is at present approximately half the level of that in the basic and internal transport processes, and also of the loading and unloading work. Employment in these fields now amounts to about 1 million persons.

Finally, a separate problem in the investment field arises from the consequences of the new demographic projections. The size of the increments in the number of children and young people over the next five years clearly indicates the necessity of revising the present investment programs in the fields of education and the health services above all. It will become necessary to meet growing needs of this population group, owing to the anticipated increase in their number by about 0.7 million persons relative to the assumptions held up to now. Current tasks in the field of social policy, especially with regard to the protection of the family, will also require a certain increase in the outlays necessary for the development of services that are to make possible economies of time and to facilitate household work.

The main tasks of investment policy for the next few years which were outlined above reflect the need for indispensable transformations in the structure of outlays and their concentration on selected directions while adhering to the overall volume of planned investments. This signifies the necessity of maintaining a strict investment discipline in the determination of the annual volume of outlays and in the execution of these outlays within the set limits, for in addition the growth of investments undertaken in the framework of the development of the joint raw material bases implemented by the CEMA countries needs to be taken into account. In particular this concerns the problems, of inestimable significance for Poland, of supplies of petroleum and natural gas, atomic energy, cellulose and other important raw materials which are decisive for covering the basic needs of the economy and equilibrating its materials balances. At the same time raw material investments on Polish soil will be appropriately expanded, with the requirements and contributions of the other socialist countries in mind.

* * *

As stressed already earlier, over the next few years the directions of investment which resulted from the economic maneuver executed in the current five-year plan period should be maintained. It is beyond doubt that we are entering upon the final phase of the execution of this maneuver and are approaching the achievement of results from its implementation. Hence, besides the main tasks of the new phase of investment policy outlined above, the program of investment measures taken in hand previously must be consistently implemented.

First place belongs to the probems relating to the equilibration of the domestic [consumer] market, and in particular the expansion of those investment fields which directly assure an increase in [consumer] market production and services. This concerns the programs of expanding small-scale production and services which recently were given separate emphasis.

Analogously those investment fields must be consistently reenforced which serve the modernization of agriculture and the food industry, and also those which make possible the appropriate expansion of industrial branches which directly service the needs of agriculture. Investments in industries processing agricultural raw materials and facilitating a significant improvement in their utilization assume a special place in this context. The same applies to those sectors of industry, the expansion of which constitutes a basic prerequisite for the implementation of the tasks posed in the long-term program for the growth of residential and municipal construction.

Burning investment tasks have come to the fore in the recently formulated aid programs for transport, especially railroad transport, and the power industry. The assignments in this sphere up to now were components of the so-called emergency programs for the achievement of a perceptible improvement in railroad transport and power generation, with a view to mitigating the most acute socioeconomic impacts. These relatively rapidly implemented programs, which had the benefit of special privileges, also comprised a set of exceptional aid measures of interested ministries to overcome the acute difficulties in the fields of rolling stock and railroad line repairs and of repairs in the electric power system among others. The above emergency programs, however, constitute only the initial stage of the investment and overhauling efforts which also strengthen the capacities of the construction-installation and repair enterprises in the final biennium of the current five-year plan period.

At the present time--in the new phase of investment policy--it is necessary to specify more concretely further tasks to benefit transport and the power industry in the perspective of the 1981-1985 five-year plan. For in the light of the expected production tasks this plan will bring about a significant increase in the requirements for transport services and energy. The growth of these tasks in the next few years requires current investment efforts on an appropriately increased scale. It is difficult to speak in this context of an implementation of the indispensable transport and energy investments in advance of the requirements, for these investments will have to be realized under particular pressure and on shortened schedules in order just to keep pace with the growing need for the expansion of these two branches of the economy which at the moment represent the tightest bottlenecks impeding the course of the development processes.

A consequence of the above is the necessity of taking into appropriate account the issue of investment linkages. This relates in particular to a faster investment process in those industrial plants in which output must be increased as an obvious precondition for the successful implementation of the much larger investment outlays on transport and power generation. Similarly, investments assuring the expansion of the domestic production of machinery and equipment for modernization investments must be correspondingly expanded, for the modernization programs should comprise a markedly rising share of domestic technology. A number of investment linkages are associated with the concretization of the growing tasks for the benefit of agriculture and the food industry, as also in the case of housing construction which we discussed earlier. Large significance adheres to the recently formulated programs of investments necessary to guarantee technology supplies for the coal industry, with separately specified tasks for the brown coal industry.

Even when thus presented in a very summary fashion the complex of basic tasks of the new phase of investment policy sufficiently reflects the highly complicated set of problems arising in the area of investment volume, structure and directions. What is more, at the time of the final specification of the five-year investment plan as a whole the need will arise to effect a selection of the most fundamental tasks together with the determination of the time sequence of their implementation. Investment policy and its tasks are rigorously subordinated to the general guidelines and aims of the national socioeconomic plans, the harmonization and coordination of which requires an appropriate backing of investment outlays. This also relates to the requirement for the coordination of investment tasks and of their implementation, especially in the construction sphere.

At this point we come into contact with the issue of the quality of execution of the investment plan. For independently of the determination of the directions and proportions of investment outlays, based on concretely specified plan tasks, we have to pay attention to the substantial reserves which continue to remain hidden in the course of the investment process itself and its quality. The effects of this process has in the last few years shown a marked decline. The excessive expansion of the front of new investments, the huge volume of investment funds engaged and frozen in the process, the lengthening of the investment cycles owing to curtailments of outlays, including curtailments affecting continuing projects--all this has had the effect of slowing the ongoing investment and construction processes and by the same taken of postponing or delaying the expected production and service effects. A corresponding influence in this sphere was exerted also during the execution of the economic maneuver, especially in its starting phase.

At the present moment, in the new phase of investment policy, a significant improvement in the efficiency of the investment process is both possible and necessary. This includes the recovery of the proper execution speed of investments and the rendering of faster and greater socioeconomic effects for the economy. The policy of concentrating outlays on the implementation of the main tasks should also contribute to a shortening of the investment cycles themselves. A substantial raising of effects can be obtained from improvements in the process of running new installations up to the designed production and service capacities. Auspicious perspectives have been created also by the introduction of the economic-financial system into the entire sector of construction-installation enterprises. In sum, we can thus expect a general improvement of the efficiency of the investment system and the operating system of the investment execution organizations, including design offices and construction-installation enterprises. No dispute can arise with regard to the necessity of upholding with the most pronounced emphasis the demand that the more moderate investment growth rate and the significantly lower annual outlay increments must be compensated by an improvement in the investment process itself and an increase and acceleration in the socioeconomic effects obtained from it. If effectively utilized, this undoubtedly significant reserve can perceptibly contribute to an increase in the overall effect of investment activity, and hence to additional increments in national income and non-material services.

From this point of view it is necessary to achieve at the same time improvements in the calculation of the comprehensive socioeconomic effectiveness of the investment outlays, for only total--and that means direct and indirect--investment effects should constitute an all-round justification of investment activity. The inclusion and full consideration of indirect consequences of investment activites, together with improved efficiency in their execution, will make a substantial contribution to socioeconomic development by raising its growth rate and increasing its results. The continued regular institution and universal application of investment effectiveness calculations should constitute an elementary rationality maxim for decisions taken in the sphere of programming and designing intended investments.

The result of broad-scale investment operations will be a substantial increase of fixed assets. The large volume of investments-in-process, with which we enter the period of the next five-year plan, signifies that the allocation of substantial funds to on-going investment undertakings will ultimately assure a large increment in national assets, both in the production and in the consumption spheres.

On this basis a continued high rate of increase of fixed assets can be expected for approximately the next three years. This will constitute a strong and highly up-to-date basis for the further expansion of production and services and by the same token for the attainment of corresponding increments in national income and in the nonmaterial services. The latter will at the same time contribute to a substantial augmentation of social development and in the satisfaction of the social needs of the population.

In this sphere also substantial reserves exist for a marked raising of the comprehensive effectiveness of investment, for a rapid putting into operation of the newly commissioned fixed assets and their correct utilization will in practice signify a marked enlargement of material production and services directly affecting both economic development and the improvement of the living standards of the population.

In conclusion it can be stated that in the new phase of investment policy for the near future new assumptions must be taken into account besides the traditional directions of activity in effect until now, and a number of possibilities and reserves which continue to be available in the course of the investment process itself and in its improvement must be exploited. Hence the very volume of investment outlays allocated to various purposes must be backed in a comprehensive manner by the basket of measures aimed at a substantive improvement of the investment process and the mastering of its rising social costs. What is at issue--to put it figuratively--is that every zloty invested in the coming years should yield a return which is not the same as that obtained hitherto, but larger.

In this context the principle of effective utilization of the investment zloty should not be considered in the narrow sense only, i.e. in relation to individual tasks and plants. The aim, after all, is the most useful employment of investment funds primarily with regard to resolving the chief issues and opening up the socio-economic bottlenecks. Here policies to overcome the bottlenecks on the macro scale take top ranking, with measures to achieve an effective improvement in the external equilibrium by means of a marked increase in export-oriented investments. The same is true in relation to the internal equilibrium for the influence of [consumer] market-oriented investments. Analogously the significance of widening the bottlenecks of socioeconomic development at an intermediate level must be stressed, such as a significant strengthening of the transport sector and the power industry and the mitigation of other acutely felt growth difficulties at the branch level. Investment directions of this type analyzed at the micro level, finally, relate to individual sectors and plants, especially with respect to the specialization and modernization of production. Investment programs for the creation of export sectors and larger export units, both in industry itself and in agriculture and the services, merit special and separate treatment.

Fundamental significance adheres to the participation of investments of this type in the implementation of the target programs adopted by the CEMA which assure the specialization and cooperation of the interested countries, an approach which yields significantly increased mutual benefits.

Finally, the process of investment implementation itself, which in recent years has evidenced many shortcomings and weaknesses, requires fundamental improvement. Most acutely felt were the painful consequences of delays and of the poor balancing of the volume of investment tasks with the capacities of construction-installation enterprises and force-account units, both on the national scale and on that of individual voivodships. The same can be said for the balancing of machinery and equipment deliveries, both with regard to domestic and to import supplies. The discrepancies in the harmonograms of construction work and machinery deliveries find a markedly negative expression in the growing volume of stocks. In a certain sense this constitutes at the moment an important reserve available for utilization and by the same token for raising the effects obtained. In this context we must emphasize the special role of the banks in improving the efficiency of the investment processes, in particular with regard to level of discipline, adherence to schedules and control of costs. This links up with improvement of investment planning in general and resistance to the rise of cost-estimate values, including that based on an expansion of the range of tasks; it also links up with the role of the central and local organs, inter alia in the field of the correct localization of investments and the continuous supervision over their execution.

Thus we now enter into a new phase of investment policy which requires a fundamental deepening and perfection of investment concepts, taking into account many basic domestic and external prerequisites of decisive significance for the character and speed of socioeconomic development as a whole.

9108
CSO: 2600

MODERNIZATION OF METALLURGICAL INDUSTRY DESCRIBED

Warsaw ZYCIE GOSPODARCZE in Polish No 35, 2 Sep 79 p 2

[Article by Lech Froelich: "The Modernization of Metallurgical Plants" passages enclosed in slantlines printed in boldface]

[Text] This year, Poland's metallurgical industry supplied the national economy with over 20 million tons of steel, 13.5 million tons of finished rolled products, over 19.5 million tons of coke, and nearly 250 thousand tons of zinc, as well as a considerable amount of electrolytic copper, aluminum, and silver which we did not produce at all 35 years ago.

A Muture Matter

In every country of rich metallurgical traditions, there occurs a turning point at which it is necessary to make decisions concerning giving up production of obsolete articles and modernizing productive assets. In the Polish metallurgical industry, the excessive postponing of reconstruction led to the necessity of putting this process into effect in a relatively short time. It should be stressed that one can observe similar tendencies in world metallurgical industry. In the years 1965-75, approximately 30% of the productive potential of metallurgical industry in France and in West Germany were modernized. A similar process is being realized in the British metallurgical industry. The accelerated tempo of modernization is a distinguishing characteristic of Japanese metallurgical industry,which by 1970, made up all the arrears in production from before 1950. In Poland, until now, we have been placing the main stress on the investment processes, on development "expansion". Currently, in searching for ways to improve efficiency, a way of utilizing the available potential has advanced to first place. And also its reproduction.

The reconstruction program of Polish Metallurgical industry was drawn up according to a resolution by the 6th Party Convention. In practice however, greater committment to the realization of this program became possible only now, when the construction of the Metallurgical Plant "Katowice", the alternative to the old Silesian metallurgical plants, has reached the half way mark. The following facts can testify to the degree and urgency of our needs: Of 30 Polish metallurgical plants, 14 are more than 100 years old, and 3 are past 150 years old. Among the latter is "Kosciuszko", the oldest consecutive working metallurgical plant in the world.

The first serious modernizing work in metallurgy was already begun in the past five years. The following were constructed at a cost of over 44 million zloty: a steel mill, a rolling mill and a so-called multi-position metallurgical unit in the Metallurgical Plant "Zawiercia", a rolling mill was constructed in the Metallurgical Plant "Cedler", a tube mill in the Metallurgical Plant "Ferrum", a ferrosalloy furnace in the Metallurgical Plant "Laziska", etc. New metallurgical processing plants were built in the Metallurgical Plant "Nowotko", in Ostrowiec Swietokryski, and in the Metallurgical Plant "Warsaw" .

In three years of the current 5 year period, nearly 27 million zloty were spent in expansion and modernization of metallurgical industry. It is difficult to enumerate here the exact scope and places of the work. Lately they have encompassed, together with general overhauls, practically all Polish metallurgical plants. For the purpose of expanding the scope of modernizing activities, the rule was adopted that besides investments, general overhauls, as well as outlays from the technical progress fund must also serve to up-date production.

In Katowice, through the initiative of the provincial Party organization, a program was developed, for the years 1979 - 1983, to modernize plants, which come under the Association of Iron and Steel Metallurgical Industry, in the province of Katowice. A modernization program on similar principles, for metallurgical plants located in other provinces, is still being worked up.

In programming assignments and jobs, the binding rule is that the monies spent for the modernization of metallurgical industry must bear fruit, not only through increased production, but also in an improvement in the quality of the product.

"Hutmasz"

The Association of Metallurgical Machines - (ZMH), "Hutmasz" has entered into its fourth year of activity. Established in April of 1976 for the purpose of concentrating, specializing and coordinating the production of machines and equipment for the metallurgical industry, it was to: create a technical and material base for metallurgical development and modernization, based on modern solutions, and to increase the quota of Polish metallurgical machines and equipment for export.

We anticipate that, in the period 1976 - 1980, the plants of the new Association will produce approximately 290 thousand tons of machines and equipment, which even so will not fully meet the growing demands. Matching the quantity and the quality of the assorted needs of the metallurgical industry would demand expanding the existing production bases of ZMH "Hutmasz". Making up the Association are: the Metallurgical Plan "Zygmunt" of Bytom, a plant having over 100 years tradition of producing among other things, complete rolled bars, sheets and tubes, equipment for continuous casting, forging hammers and presses, scrape baling presses, and equipment for blast furnaces; the Metallurgical Plant "Zabrze", a supplier of arc and resistance furnaces and equipment for metallurgical transport; the Metallurgical Plant "Malapanew" in Ozimek, (the oldest metallurgical plant in Poland, established in 1754), which produces rolling mill equipment, heating furnaces, cast-steel rolls and casts, and metallurgical fittings; and the Mechanical Plants "Zamet" from Tarnowskie Gory, which supply among other things, equipment for ore dressing and extraction, and flotation machines. Beyond this, the Association's membership includes: the Metallurgical Equipment Plants in Kety, which specialize in the building of induction furnaces for steel, copper, zinc, and aluminum metallurgical industries. The multi-plant, Machine Construction Industrial Group "Czestochowa", exceeds its activity beyond supplying the metallurgical industry, since it provides its "sister" mining industry with crossbars, all purpose railroad car unloaders, self propelled drilling and anchoring cars. Furthermore the Association already possesses fully developed research-design facilities; approximately 1,300 specialists, designers, and design engineers work up plans of flowlines for the iron and steel metallurgical industry, as well as for the nonferrous metal industry. The Metallurgical Enterprise of Finishing Operations in Machine and Equipment Supplies "Hapeko" deals with professionally completing equipment and entire flow lines supplies.

The Association is constantly collaborating with scientific research centers, and, examplary of good formative collaboration, is making use of the rich resources of the Silesian Politechnical University and its Institute of Material Engineering Technology. The activity of the "Hutmasz" Enterprises is also based on broad collaboration with foreign firms from the East and West. By this we mean an exchange of technological experiments and co-production, as well as joint appearances on the third-world markets. Certain traditions already have contacts with the firms of Demag, Schloeman-Siemag, Sack, and Achenbach of West Germany, and the firms, DMS and Stein Surface of France, and with Voest - Alpina and Ebner for Austria.

Acceptance of the new organizational structures and expansion of production bases; the development of our own experimental research project sources; and international cooperation allows "Hutmasz" to undertake even more difficult tasks, and to cope with the demands of technical progress occuring in the world.

The World Is Already Acquainted With Us

Metallurgical machines and equipment produced in Poland are already used in 70 countries of the world and are compared favorably with equipment from other firms of renow, said the chief director of ZMH "Hutmasz", Jan Madry, Master of Engineering. This year, for example, we will be demonstrating them at 15 fairs and exhibitions including: the International Exhibition of Forging and Casting "Castingo" in Birmingham, the exhibit "METEC - 79" in Dusseldorf, the International Casting Exhibition in Belgrad, the fairs in Hanover, Leipzig, Brno, Poznan, Cairo, Budapest, Damascus, Plovdiv, Salonika, Belgrad, and in Bucharest.

Listed among our latest exporting contracts are: supplying a small scale rolling mill to Switzerland, 16 drop-forge hammers to Japan, straightening presses and embossing presses to the U.S.S.R and so on. Generally speaking, it can be said that the specialization, conceded to Poland by the CMEA, includes, among other things, resistance furnaces, presses, assiting equipment, and post-rolling machines. Among the CMEA countries, long range agreements were made on common supplying, which will stabilize production and allow for the building of long term production plans. And so, for example, we already know that in the years 1981-85, we must supply Soviet metallurgists with approximately 50 thousand tons of specified equipment for rolling mills, coking plants, agglomerating plants, and continous casting foundries.

In our opinion, the profitability of this transaction is good. Tentatively we can say that, in exporting to Second area [capitalist countries], we receive about 5 D.M. (Deutsch Marks) for every one kilogram of our machines and equipment. So that we are not suspected of boasting, it should also be added that in importing technical equipment from the West (especially electrotechnical elements and electronics), we pay even three times more per kilogram for them. Of course we are striving toward more favorable prices gained in our export trade. This will become possible at a time when we will sell not units of metallurgical machines (as a co-operative party), but rather when we undertake complete delivery. So, for example, in order to construct a rolling machine, we currently need the assistance and supplies of 60 foreign partners, and therefore we must sign about 60 import contracts. In our circumstance, this is very complicated. Should foreign firm undertake completion (even though most of the elements may be Polish), then the completor will earn at least 15% for this operation.

The rate of the work yield of our industry is another matter. Last year it amounted to 434 thousand zloty for one employee, a growth from year to year of 13.4%. We can present this still another way. Four years ago, it was necessary to use approximately 200 working hours, people and machines to produce one ton of metallurgical equipment. Currently, it takes only 62 hours. It should be emphasized here, that one important criteria of work for our design engineers is to strive to "slim down" the produced machines. They are heavy in nature, and because of this, the possibility of reducing the weight and diminishing the use of materials is significant. However, the tonnage rates in account settlements and production planning, which bind the metallurgical industry up to the present, are of course an anti-stimulant.

Constructing a lighter machine is more difficult, and the responsibility for its reliable and safe performance under the presence of enormous force is great. Although there are no incentives, there is engineering ambition and a citizen's sense of responsibility.

It is worth emphasizing that in realizing the second building stage of the Metallurgical Plant "Katowice" (the highest investment area in Polish metallurgical industry), 80% of the flowline equipment will come from the factories of "Hutmasz", concluded the director of "Hutmasz".

That Steel May Flow, So The Rollers May Turn

It is evident that the volume of metallurgical machine production, which influences development of the metallurgical industry and its modernization, in order not to be under capitalized, should remain in definite proportion to its functional potential. In the last three years (from 1975 to 1978), the "Hutmasz" plants considerably increased their production from 46 thousand tons of machines and equipment to 66.4 thousand tons, or by approximately 45 percent. In the experts' opinion, in order to create conditions (for Polish metallurgical industry) for systematic reconstruction with production potential equalling 25 million tons of steel, we must have at our disposal a base, producing machines for the metallurgical industry, which can annually supply approximately 150 - 160 thousand tons of machines and equipment. We should also take into account that, at the present Polish metallurgical industry scale, import of necessary equipment, considering the high encumbrance of the balance of payments in which it would result, in practice would be out of the question. Especially since we can construct and produce them.

9440
CSO: 2600

OIL REFINING PROBLEMS DESCRIBED

Warsaw ZYCIE GOSPODARCZE in Polish No 35, 2 Sep 79 p 8

[Article by Aleksander Jedrzejczak: "The Indigestible Cocktail"]

[Text] In gathering materials for this article, I had to listen to a series of sermons which were rather discouraging to public debate of the problem which interests me. "Prices rise insanely on the world market", I was told. "It is well known that the government money situation is difficult, and that we must import quite a handsome portion of crude oil for dollars. We are buying, and will continue to buy, whatever crude oil we can get. If someone were to offer us a price lower than most, and if the conditions of payment are more conducive to our present abilities, then all other considerations must be shelved." Not literally, but in this spirit.

The Pitfalls of Sham Bargains

Turning a deaf ear to these types of remarks would have been unforgivably reckless. Economic optimization, especially on a wider scale, is a prerogative of the wealthy. Finding themselves in a more difficult situation, often they must give up chances which permit the possibility to choose, the possibility to wait out unfavorable economic situations, or completely solve the given problem.

On the other hand, in taking into account only the problems of foreign exchange, it is also easy to procure a situation, where the negotiated conveniences (even the lower prices) can become sham benefits. In the purchasing of raw materials, this is frequently decided by the available technical base. In the case of crude oil, this is easily proven.

It is relatively easy at the present time to purchase oil which congeals at temperatures +3, +5, and +7 centigrade; open bids; prices that are bearable (as things go), and between the lines, one can read hope for obtaining fairly easy payment terms.

Should We Take It? Should We Buy All We Can?

One cannot disregard such an offer. But before signing the contract, it would be wise to take into consideration that already in unloading the tanker, one would have to add so-called depressants, which lower the congelation temperature. We do not produce these natively, and their import increases the price of each ton by about $1.50, and then it is dangerous to force this crude oil through the pipelines. Therefore, it is transported in tank trucks which can be heated, should the need arise. More expensive, but safer. However we have too few tank trucks. Time after time, we have to supplement our own transport equipment with equipment borrowed from foreign countries (also for dollars). And then later (in our geographic latitude this will frequently occur), once more we will have to heat the storage tanks, in which the easily congealing crude oil will be stored. On condition that there are such storage tanks, how much is left of the lower prices after all of these operations?

How Much Depends on Flux

The second part should also begin with a fragment of instruction which I had to listen to, circulating about the offices and administrations. "Everyone would like", it was submitted to me, "to receive everything he needs, ready made on a platter, and to entrust production to automatic systems, while he himself lays back quietly and calculates how much profit there is to be gained at little cost. And if one has to exert himself a little, then right away there is lamentation and tears, and nagging of the administration and so on. Many refineries in various countries operate on the "from the tanker" system; whatever happens to sail into port is distilled without whining."

Actually there are many refineries in the world which operate by the "from the tanker" system, distilling whatever is actually supplied to them. These are however only the refineries which operate on the fuel mode, separating only gasoline and diesel oil from the crude oil, and designating the rest for heating oil; something which already even in the wealthy countries is recognized as wasteful.

And here we should begin the second part of the bill. We already know from technical respects, or, if one prefers, from investment-technological respects that one can not profit from every trade bargain. Part two says to calculate cautiously, what can be obtained from a given grade of crude oil, how many different products, of what quality, and for what price.

There would be no sense here, in quoting the concrete prices of the individual grades of crude oil and of the products produced from them. It is much easier to make use of price relations of products in comparison to the crude oil prices. These relations are also not completely stable. Examples from the beginning of this year, however, will allow us to become oriented with how much depends on the flux quantity.

In accepting the price of crude oil for 100 - we receive the following indicators: liquified petroleum gas - 120, automobile gasoline - 145, diesel oil - 130, heating oil - 80, lubricating oils - 210, asphalts -

150. Please see for yourselves how varied the value of the yield can be, depending on the make-up (the experts say - potential) of the purchased crude oil. An easy gain of even 30% gasoline, at an average which fluctuates within the range of 16 - 19%, does not at all forejudge the profitability of refining. Especially if the higher yield of light-fraction products, from atmospheric distillation, must cover the cost of the less useful distillation residue for cracking, or, in the absence of this residue, the fractions necessary to manufacture lubricating oils.

However, calculation of the value alone does not put an end to the bill. The balance of the petroleum products themselves also must be sensibly closed somehow. There are certain products (and by no means all fuels) of which there frankly can be no shortage, not even for a day. A few times already, we have had the opportunity to ascertain how much we must pay for petroleum products, which suddenly were lacking because of some ill considered economizing.

Refineries Have Requirements

Whoever refines a lot of petroleum oil, and whoever is able to afford it, does not have to bother excessively about better or worse utilization of all its elements, or at least, does not have to dote on every consignment of raw material. Poland however, does not belong to these countries. We refine, depending on the economic situation, 8 - 10 times less petroleum oil than France, which also does not have its own suppli s of this raw material. Among CEMA countries, according to the "head count", we hold the last place in this respect. In our economy, crude oil and its derivatives are bound by other rules. And, generally, this is taken into account from the very beginning. Our refining industry, small from the stand point of refining ability, is directed entirely at heavy refining of crude oil, in order to increase the production of fuel (cracking), and to upgrade the refining of oils and parafine. Investment difficulties, occacionally too rigid laws, and unrealizable prices for many products hamper development in this direction. In spite of these difficulties, it can be said that we have built the refining industry from the beginning with the acknowledge that we will have to import an essential portion of the raw material and, therefore, we cannot afford superficial underutilization of crude oil and unthorough refining. This accurate and consequently realized conception also however, created certain limits which we cannot ignore.

Experts say that decision about the assortments of crude oil stocks for refining should depend above all on the ability to fully utilize already available installations which manufacture final products decisive of the effectiveness of refining crude oil, lubricanting oils and asphalts, as well as insuring the prospects of producing jet fuel. Here, manufacturing of goods lubricating oils has special significance because of their economic profitability, and also because of their technical importance. The stable maintenance of high quality oils, however, demands that the refineries always obtain the same anticipated grades of crude oil. Since each change creates the necessity to choose flow processes for oil blocks all over again, the base oils obtained again must be certified, the formulas for the finished oils must be worked up from the beginning, and performance tests must be done. All this takes time and costs money.

Refineries are designed and constructed with the refining of definite grades of oil in mind. The types and properties of the finished products are also defined in advance. All technological engineering solutions acquiesce to this establishment. Within these so constructed installation, the refining of crude oil with considerably different content of individual fractions is simply impossible.

The Mazovian Refining and Petrochemical Plants "Plock" were designed to process one grade of crude oil. The handling tanks and flow links seriously limit the ability to separate individual flow streams in the refining of several different grades of crude oil. But "Plock" is still in a relatively better situation. It receives its fundamental portion of raw material (always the same kind) through the pipeline "Friendship". Even if it receives several hundred thousand tons of crude oil of a different batch , having five distillation sequences, it somehow manages to cope.

It is worse with Gdansk

The Gdansk Refining Plants (GZR) were designed to process two grades of crude oil. Part of the Plant (sealing its significance for the national economy) is an oil block. The huge sums of money spent for this investment were meant to assure the production of oil bases of a quality equal to that produced by such firms as Shell, Castrol or Esso-Exxon.

The oil block was started in 1977. Within the next dozen months or so, working in close cooperation with educational institutions, especially with the Technological Institute of Petroleum, its achievements were really worthy of admiration. Let us dispense with quoting the technical parameters, which are comprehensible only to the experts. Simpler, yet no less convincing, proof of the accomplishments of the Gdansk "oilers" is: a perceptibly smaller demand for foreign "quality oils", the acquisition of certificates from all the firms from whom we purchased licenses for combustion engines (carborator and high-compression) and, finally, dating back to the start of the block, the collaboration of interested firms of world wide renown with our refining industry precisely in the field of lubricating oils.

Please do not misunderstand me. I am not stating that the oil block crew already can be compared with the best. I only want to show that people, who were entrusted with complicated operations and costly equipment, are able to, and want to, utilize them in the best manner. I also want to present as clearly as possible their current problems. The fact of the matter is that installations alone (even if the most modern, automatic, computer directed, etc.) are the opportunity, the possibility. Excellence in the oil business is attained through a deep mastery of process, determination and constant maintenance of the optimal parameters through (as it was explained to me) petting, nursing, and tending; almost caresses.

And these unengineering terms explain why the comparison of GZR with the refineries, which manufacture dozens of all possible grades of crude oil, smacks of nonsense. You cannot attain the highest quality of oil by refining a different crude oil each quarter.

And that is what is actually happening in Gdansk. Last year, they were to process three grades of crude oil, this year four, and, moreover, mid way into August, no one still had any idea of what they were going to get in the fourth quarter.

Not long ago, the manager of one of those well-known firms, which was soliciting collaboration, invited a group of our oil specialists over. He showed them his laboratories and refineries, and his methods of testing and production. He probably wanted to prove to our people how seriously he treats his bid and at the same time to impress us a little. And he succeeded. Once, however, he also was amazed. This occurred when our people stated from what kinds of crude oil they distill. "Four grades within a couple of months? What can you do with that kind of cocktail? No one in the world does that." I will not attempt to determine how much of this was admiration and how much sympathy.

I will not describe any more complications which frequent changes in the grades of crude oil create in an overhauled economy or in every re-opened refining installation. These are not trivial problems by any means, but must at this time remain in the background. The purpose of this article is to bring out basically simple questions, obvious to the experts, more difficult, it appears, for some officials who judge the abilities of the experts: Frequent changes in the grades of petroleum oil do not create radical difficulties in the production of engine fuels, with the exception of reactive fuels. However, for the production of lubricating oils, especially engine oils of higher quality, it is necessary to segregate these grades, and assure identical supplies of even the lowest over long periods of time. From a crude oil cocktail, no one can make excellent oils. But we have created for a large sum of money, the opportunity to equal the best.

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BRIEFS

NEW HELICOPTER ENGINE--The first two models from among nine prototypes of a new Polish aircraft engine have already successfully undergone flight tests. This is the PZL-10 turbine engine built at the Rzeszow Transportation Equipment Plant of the Polish Aviation Works (PZL), with the cooperation of Soviet specialists, for use in the new Polish helicopter "PZL-Sokol." [Excerpt] [Warsaw ZOLNIERZ WOLNOSCI in Polish 30 Nov 79 p 1]

CSO: 2600

CONSERVATION OF RAW MATERIALS, ENERGY STRESSED

Industrial Progress Analyzed

Bucharest REVISTA ECONOMICA in Romanian No 33, 17 Aug 79 pp 3-5

/Article by Gh. Sica, director in the State Planning Committee: "The Many Facets of and Resources for Economizing and Better Utilization of Raw Materials and Energy"/

/Text/ The economizing of social labor in the broad sense of the concept, the accenting of the processes for utilization of raw materials and supplies, the rational management of the resources that the country possesses and the systematic reduction of the costs and material expenditures per unit of product constitute objectives that will govern the exigencies of the development of material production in the next decade too. In this regard, Comrade Nicolae Ceausescu pointed out at the joint plenum of the RCP Central Committee and the Supreme Council for Economic and Social Development of Romania in July of this year: "The reduction of material, energy and fuel consumptions in all fields is one of the central problems of the directives, of the next five-year plan, of our daily activity.... Let us proceed more decisively to reduce the production expenses in all sectors of economic life."

The Economizing and Better Utilization of Material Resources

A great importance is accorded to the development of the base of raw materials in the draft directives of the 12th RCP Congress on the economic and social development of Romania in the 1981-1985 five-year period and the long-term guidelines up to 1990. Efforts to economize on and raise the degree of utilization of raw materials, supplies, fuel and electric power occupy a significant place in the furnishing of the material base for production activity.

The economizing and better utilization of raw materials and supplies have been approached and, undoubtedly, will be resolved further in our country through the modernization of industrial equipment, through the wide-scale promotion of scientific gains and technical progress in the economy. The year-by-year allocation of a significant part of national income for investments with a view to growth of economic potential and development at constant rates has allowed productive fixed assets to register significant increases, with many new production capacities being integrated into the economic circuit, along with the equipping and retooling of existing capacities, aiming at the level of world technology.

Equipped with modern technology, the new production capacities are giving obvious stimuli to the growth of social labor productivity, from the viewpoint of both the better utilization of raw materials and supplies and the economizing of resources. The ways in which the new units are contributing to the economizing of social labor are many and varied, depending on the specific character of the branches, on the technical and economic characteristics of their activity. In the metallurgical industry, for example, the achievement of blast furnaces with high effective capacities and the injection of methane gas (the average volume of the furnaces in our country rising from 454 cubic meters in 1965 to 970 cubic meters in 1975 and 1,186 cubic meters in 1980) has made an essential contribution to reducing the specific consumption of blast-furnace coke, an imported product for which significant amounts of valuta funds are spent. At the same time, the putting of new, high-capacity rolling mills into operation at the Hunedoara CS [Iron and Steel Combine] and the Galati CS and the year-by-year growth of the percentage of alloy steels and of steel prepared in electric furnaces and in converters with oxygen and the procedure of continuous casting in the total metal production have led to significant reductions in specific consumptions, placing Romania at a level close to the achievements of advanced countries from this viewpoint.

Our machine building industry, modernizing its structures and basing its development especially on the industries of electrical engineering, electronics, precision machinery, optics and complex installations, has obtained important successes along the line of economizing on metal and utilizing it. The evolution of the metal consumption per million lei of industrial production, in relative figures, is presented as follows:

(%)

1965	1970	1975	1980	1985
100.0	68.6	48.1	42.3	32.7

Source: statistical and plan data processed by the author.

Undoubtedly, through the systematic redesigning of products and the accenting of their qualitative parameters, the indicated trend will also be maintained up to the 1985-1990 period.

New enterprises with a complex and varied profile that have better utilized timber were built in the wood industry. The evolution of the products obtained from a cubic meter of timber, in figures relative to 1965, is illustrative in this regard:

(%)

1965	1970	1975	1980	1985
100.0	142.3	1977.5 [sic]	285.6	374.1

Source: statistical and plan data processed by the author.

The chemical industry, one of the basic branches of our economy, constitutes an example of utilization of natural resources in our country. The many possibilities offered by the chemicalization of methane gas, for instance, are illustrated by the fact that, taking as a basis its utilization as fuel, its transformation into 100-percent nitrogen fertilizer and into urea-formaldehyde resins permits an increase in utilization by a factor of 13.9 and 23.3, respectively. The modern technologies assimilated are also having positive effects on the unit cost of products. The cost of the phenol obtained in Ploiesti by means of the "via cumene" procedure, for example, represents 40 percent of the cost of the phenol obtained at the CC [Chemical Combine] Fagaras by alkaline solution. The technology for producing caprolactam from benzene, compared with the phenol procedure, leads to the reduction by almost one half of the costs involved. Similar examples can also be given for the ammonia industry, the low pressure methanol industry and so on.

In the cement industry, a reduction of the technological specific consumption of fuel from 950 kcal per kg of clinkers to 900 kcal per kg of clinkers, a reduction of electricity consumption by 7 percent and a rise in labor productivity by 18 tons per worker will be obtained through the introduction of the dry procedure of manufacture with precalcination in the place of the wet procedure. Given cement's character of an energy-intensive product, such technological solutions are always of a nature to economize on social labor. Along this line, in the draft directives provision is made for about 95 percent of the cement production in 1985 to be achieved by means of the dry procedure--more economical from an energy viewpoint--with there being an expansion of the manufacture of assortments containing cinder and ash from thermoelectric power stations.

Many Actions for the Better Management of Energy Resources

A complex and ever topical problem is that referring to the economizing of energy resources. Along this line of thinking, it is necessary to stress the priority role of energy resources regarding the rate of economic growth, with inherent implications regarding the national product and national income, regarding the modernization of the national economy. Hence too the necessity of careful management, within a framework of a strict policy of economizing on energy resources.

The high value of hydrocarbons as a source of energy and raw material in an industry with dynamic rates like Romanian industry has stimulated the taking of decisive steps to restructure the resources of energy bearers involved in electricity production. Fuel oil represented 62.6 percent in the balance of electric power and coal only 24.4 percent in 1938, but fuel oil represented only 6.9 percent and coal nearly 30 percent in 1975. Coal will represent 44 percent, natural gas 30 percent and fuel oil 4 percent in 1980.

If we take into consideration that 360 g of conventional fuel, that is, 1.5 kg of lignite, 280 g of fuel oil or 0.320 cubic meters of methane gas, are consumed in order to obtain 1 kWh of electric power, we can appreciate the importance of economizing on electric power in every way, particularly in industrial consumption, but also in other fields. In fact, the concern for economizing on energy resources is characteristic of the contemporary world. The idea that the rate of economic growth should not necessarily depend on an equivalent increase in energy consumption stands out clearly. A relatively recent study of the UN Economic Commission* promotes with sound arguments the necessity of improving the ratio of the coefficient of energy consumption per percent of PNB /gross national product/, through the reorientation of production and the reduction or even the elimination of energy-intensive products, the replacement of pieces of equipment that are big energy consumers, and prompt technical changes that respond to the growing need to reduce energy consumption.

The constant growth of the price of crude oil in recent years and the fact that Romania is obliged to import great quantities of crude oil up to the ninth decade in order to cover its needs for economic and social development necessitate the implementation of firm measures for the economizing of energy resources and the identification of technical solutions for the rationalization of consumption and of other energy sources (wind, solar and so on). The reduction of energy and fuel consumption is one of the central targets of the directives, with new technologies being elaborated in the next five-year plan with a view to the rational utilization of energy and new sources of energy. Along this line, the research for markedly reducing the specific consumptions in all branches with a view to the conservation of energy and the recovery of secondary energy resources will be intensified.

The Recycling of Secondary Material Resources

A special problem on which we will have to dwell more is connected with the necessity of more intensely and efficiently utilizing the country's secondary material resources. So, for example, in the draft directives it is planned that 40-50 percent of the need for raw materials and supplies for internal consumption, and even more than 50 percent in some sectors, will be covered through the recovery and reuse of secondary resources. The utilization of secondary resources to a greater and greater extent increases the base of raw materials in the economy, helps to reduce production costs and contributes efficiently to economic and social development. Certainly, such an orientation is fully justified both because the natural resources that our country possesses are limited and because greater and diversified quantities of useful substances are obtained through the utilization of secondary resources.

The following calculations show how important it is for secondary resources to be drawn into the economic circuit:

At the level of 1978, a 1-percent increase in the volume of processed waste materials and secondary materials would have permitted the obtaining of extra raw materials valued at about 150 million lei;

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* Geneva, 15-25 April 1975.

A volume of 1,000 tons of wastepaper collected and utilized in paper save 17 hectares of coniferous forest (which is restored over a long period of time) from cutting;

A cubic meter of household garbage, which weighs 340-360 kg on the average, contains between 25-65 kg of paper, 4-8 kg of plastic, over 5 kg of metal, 17 kg of textiles and about 200-240 kg of food scraps, pieces of glass and ceramics, and so on.

The possibilities that the Romanian economy thus possesses are considerably greater and it is necessary to increase in intensity the concern for applying the process of collection and utilization of these secondary resources. In view of the economic importance of secondary resources, the party leadership has stressed several times the necessity of proceeding more decisively to recover them and reintroduce them into the economic circuit.

The plan for collection and utilization of waste materials and other secondary resources is now a component part of the sole national plan for economic and social development. The industrial utilization of materials that result from the activities of processing and consumption will be expanded in the future, which will permit the raising of the economic efficiency of their utilization. In the case of refuse wood, for example, the percentage of industrial utilization will rise substantially, over 60 percent in 1980, with a gain of 40 cubic meters utilized being obtained by means of this. Over 85 percent of the total quantity of blast-furnace and steel-mill cinder that is produced annually is utilized at present, and for the rest, representing nearly 400,000 tons per year, research is being done with a view to utilization in the making of concrete blocks with hollows, autoclaved cell concrete, glossy plate for covering walls, and so on. In addition, the ash from thermoelectric power stations, which still constitutes a significant source of uneconomical expenses (500 hectares blocked by 30 million tons of dumps, with transportation and supply costs of about 9 lei per ton), will be able to be utilized in the construction-material industry, with it remaining for the research to lead to the utilization of this ash in aluminum extraction, in industrial construction, in agriculture and so on.

In view of the insufficient degree of utilization of secondary resources in the current stage (we are now using about 300 residual materials and groups of such materials), research is in the process of being done that is meant to also draw others into the processing circuit, as is the case with iron from poor metallic slag, nonferrous metals from nonferrous sludge coming from the processing installations, and others. Under these conditions, justifiably, it is specified in the draft directives that "in view of the limited character of our national resources and the need to rapidly make up the gaps with regard to the advanced countries, in the effort to recover and reuse materials, Romania must go beyond the maximum level attained in the world." It is necessary to stress the fact that the utilization of secondary resources in the enterprises is not at the level of the existing possibilities and needs from both a quantitative and a qualitative viewpoint. Significant quantities of secondary resources that either are lost or are utilized on an inferior scale are still found at every enterprise, in the form of waste material and refuse. In addition, the contribution of the population's households to the fund of secondary resources is still far below the possibilities. We are referring particularly to the possibilities of collection of glass containers, textile scraps, wastepaper and so on.

A number of practical courses of action, insufficiently approached thus far in the production units, still remain to be applied:

All resources of secondary materials must be included distinctly in the calculation for meeting the need for raw materials and supplies, so that throughout their processing no quantity of substance is lost;

The structure and the quantities of secondary materials resulting from various stages of processing must be determined clearly at each economic unit;

The manner of utilization in other products must be established for each secondary material, and only after that should there be recourse to utilization by means of remelting, agglomeration and so on;

Improvements are necessary in the field of keeping records of and organizing the collection and utilization of secondary materials;

Special efforts must be made in order to devise the technologies and create the capacities for processing secondary and residual materials as efficiently as possible;

On the retirement of equipment and machines, each component part of them will be analyzed with a view to their reutilization as such or by means of reconditioning.

The problem of the recycling of containers that, in the current stage of development of the Romanian economy and from the perspective of the next decade, require great material efforts is also to be approached in this context. Each container returned to the economic circuit represents a contribution to the process of economizing on social labor.

The Reduction of the Costs per Unit of Product

The wider-scale promotion of the intensive processes in the economy requires greater concern for reducing the costs and material expenditures per unit of product. The production cost continues to be an economic category of great significance in production activity. Constituting the monetary expression of the value of the material resources consumed and of the value created by labor for itself on the occasion of the production of material goods, the cost reflects, through its structure, size and evolution, the degree of efficiency with which the enterprises perform the tasks that devolve upon them from the sole national plan for developing the economy.

It is an incontestable merit of our party that it has never declined to plan production costs, since, under the conditions of the noncompetitive market under socialism, plan targets for systematically reducing the level of the costs of products must be assumed objectively. The draft directives provide in industry a reduction of 7-8 percent in the total expenses per 1,000 lei of commodity production and 5.5-6 percent in material expenditures in 1985 as compared with 1980. The achievement of this task represents a decisive condition for developing the national economy at a high rate, for increasing the wealth of society. To this end, the ministries, the centrals and the enterprises have the duty to provide for a continual reduction in material consumption, a rise in labor productivity, the better utilization of material resources, and the application of a strict policy of economy in all fields of activity.

In the light of the targets provided in the draft directives, the volume of savings that will be achieved through cost reduction in the 1980-1985 period amounts to over 190 billion lei in industry alone. Over 65 percent of them are due to the reduction of material expenditures. The significance of these reductions in production costs is graphically illustrated by the fact that if in national industry the production costs were to be reduced by 1 leu in relation to the provisions at the level of 1985 it would be possible to achieve an additional gain of over 1.2 billion lei in national income. Just with the savings expected to be obtained in 1981, over 8,000 additional apartments could be built, over 1,300 km of roads could be paved with asphalt, or agriculture could be equipped with over 11,000 S-650 tractors.

Clearly, the achievement of the important tasks provided for the next five-year period in the field of the reduction of costs and material expenditures requires exemplary fulfillment of the objectives established for the 1979-1980 period so that the "starting basis" is suitable. However, despite the remarkable achievements obtained by the enterprises and the centrals in industry in the years 1976-1979 (first half) in the field of the economizing of the material resources per unit of product, we must mention that a number of deficiencies still appeared. Some objectives in the technical plan were not attained in conformance with the requirements for economizing on social labor, the concern for drawing the resources into the economic circuit did not rise to the height of the exigencies in all cases, some enterprises registered excesses over the quotas for energy consumption and basic raw materials and supplies, the utilization processes were not always situated at the level of the objectives in the sole national plan, and so on.

The lags that some production units are registering in the achievement of the objectives established in the current five-year plan in the field of the reduction of material expenditures necessitate both an increase in the degree of concern for discipline regarding costs to prevail rigorously in the technical and economic processes as well as constant efforts made along the complex front of drawing into the economic circuit all the reserves that the enterprises, the combines and the industrial centrals possess. The targets in the next five-year plan along the line of the reduction of production costs cannot be achieved by using only the so-called "traditional" ways.

More numerous efficient solutions of a technical and technological order for reducing the costs per unit of product are required in the current stage and in the future. In addition, the connection between the objectives put in the technical and scientific-research plan and the plan for the reduction of costs and material expenditures must be perfect and synchronized. At the same time, the attainment of the technical and economic parameters at the new units put into operation on the dates stipulated in the plan is one of the problems that will be in the center of the attention of economic activity, taking into account the significance of the new sector in the economy, the prospect of its development, and the stimuli that this sector is called upon to give to the economizing of social labor. The expansion and improvement of the structure of material production through the accenting of the utilization processes, the scientific organization of production and labor, the raising of the productivity of live labor and the promotion of a strict policy of economy still are permanent ways to reduce the costs and material expenditures per unit of product.

Greater Recycling Efforts Urged

Bucharest REVISTA ECONOMICA in Romanian No 33, 17 Aug 79 pp 6-7

/Article by Engr Dan Andreescu of the Ministry of Technical Material Supply and Control of the Management of Fixed Assets: "The Utilization of Secondary Materials Contributes to the Growth of the Base of Raw Materials and to the Economizing of Energy"/

/Text/ In all corners of the globe the recycling of materials represents a problem of great topicality. Antiwaste and economizing are now among the priority concerns, and science and technology are called upon to wrest great treasures from waste. In this way, a new principle with general validity is on the point of being established: "nothing can be lost, everything must be recovered." This is one of the current basic problems generated by the world energy crisis and by the unprecedented development of technical progress, which is suddenly increasing the possibility of raising the degree of recovery and reuse of material resources for man's benefit.

The systemic concern for a better utilization of the technical, material and human potential that our country possesses and particularly for the sensible management of all material and energy resources constitutes an essential strategic component of the policy of our party and state, oriented above all toward raising on this basis the standard of living and civilization. "The recovery and reuse of materials," Comrade Nicolae Ceausescu stated, "will become a very important source for providing the base for supplying the economy; this will actually represent more than the whole mining industry will give us and this will far exceed the importation of raw materials and supplies."

Today more than ever before, the activity of recovery and reuse of materials must occupy an important place within the framework of providing the internal base of materials for production activity, since it is intended that, by means of the measures that will be established at the level of the economy, as is provided in the draft directives of the 12th RCP Congress, 40-50 percent of the need for raw materials and supplies for internal consumption will be covered in ensuing years by this means. The provisions are categorical, with each enterprise's technical-material base being conditioned by the way in which it manages the resources put at its disposal. Consequently, it is necessary to produce a radical change, a change in outlook, and to proceed immediately to apply decisive measures in this field, measures based mainly on technical creativity, technological innovation and rational management.

Recovery and Utilization, Two Concepts in Actuality

The special importance that the activity of recovery and reuse of raw materials and supplies represents--as a potential source for providing the base for supplying the economy--has entailed in recent years a whole complex of economic, technical and organizational measures involving the participation of the specialists and the research sectors for finding new, efficient solutions for utilizing the entire potential available in this field. The complex of measures adopted in this direction has led to the expansion of the specialized collection networks, with a view to the recovery and reuse of metallic, textile, paper, cardboard, plastic and other materials, the organization of sections and shops within the artisan cooperative system that acquire objects for home and personal use, with a view to the reconditioning or utilization of them, and the regulating of the obligation of the socialist units to collect, sort and utilize the resources of raw materials and supplies resulting from scrapping and from various stages of the technological processes. On the basis of these actions, in 1978, 46.7 percent of the internal consumption of ferrous materials, 44 percent of that of cast iron, 40.4 percent of the copper utilized, 29.1 percent of the zinc incorporated into products, 12 percent of the tires in use, and so on were recovered for the purpose of reuse.

Nevertheless, the results in this field are not at the desired level, there still being a number of deficiencies that lead to poor utilization of this important potential of resources. Thus, the activity of recovery of steel, and especially of alloy steel, is unsatisfactory, with proper sorting of it not being done by the consumers, for which reason significant quantities of ferroalloys are lost. In addition, the preparation of the metallic materials resulting from processing by means of pulverization and pressing, both at the units from which they come and at the specialized collection units, is unsuitable, which leads to the poor utilization of means of transportation and to the reduction of the degree of employment of steel mills.

The steel-mill slag that is now stored on huge areas of farmland represents another field in which the degree of recovery and utilization is low. The rate of growth of steel production in our country is causing the appearance of larger and larger quantities of slag (10-12 percent of steel production), with important useful elements existing in it: iron, manganese and calcium oxide. Considering that an intense activity for completely utilizing these resources is also occurring on a world level, immediate and decisive actions for recovering the metal from slag and utilizing it further in agglomeration furnaces and for other purposes (soil liming, a raw material in roadbuilding and hydrotechnical construction, and so on) are required from the specialists in the iron and steel industry. Under the conditions of proceeding to completely utilize steel-mill slag, the following annual savings are estimated: 100,000 tons of metallic material (71 percent iron), 280,000 tons of agglomerate, 160,000 tons of manganese ore, 560,000 tons of limestone and 36,000 tons of breeze coke for agglomeration.

Lags are also being registered in the mining sector, which now has significant quantities of mine dumps and ponds, which contain a number of useful mineral substances in short supply in our economy, which are still not being utilized. Although the special programs drawn up in this regard have provided research for establishing efficient technologies for recovering the useful elements from mine dumps, ponds and water, as well as investment funds for achieving suitable installations, this activity is far from being considered suitable at the present time. By stimulating the actions for recovering the useful mineral substances from these resources it is possible to provide better management of the fund of geological reserves that we possess.

Greater Responsibility in the Total Utilization of Raw Materials

The way in which some resources of raw materials are exploited and utilized represents another aspect that must be mentioned in this field of activity. For example, we can state that only about 60 percent of the mass of limestone and dolomite extracted comes to be utilized in the economy at present, and the rest, in the form of so-called "undersized" pieces, remains stored and unutilized although raw materials, supplies, energy, manual labor and so on valued at over 60 million lei are consumed annually for it too.

In the chemical industry, where a wide range of raw materials and supplies necessary to all branches of activity are processed and produced, the problem of recovering and reusing these specific materials must have a special character. In order to demonstrate this necessity, we will dwell on only two materials whose recovery no longer requires explanations.

The production of plastic also represents at present one of the most dynamic sectors of the chemical industry. The volume of processing of plastic was 1.8 times higher in 1979 than in 1975, and the per capita consumption has risen from 20 kg in 1975 to 38.5 kg in 1979. However, the increases were not achieved on the basis of the recovery and recycling of materials that concluded their use cycle but on the basis of the processing of new raw materials. This is because, from 1975 to the present, not another capacity for utilizing these very important resources has been built in the chemical industry (only 7.6 percent of them were utilized in 1978). In addition, as in the case of plastic, articles of rubber, whose consumption is continually rising, are now recovered only to the extent of 18-19 percent and utilized in fine powder and reclaimed rubber. Studies and research performed abroad have shown that chemicalization and industrialization represent the utilization of these resources in the future (77,000 tons per year in the United States and 100,000 tons per year in Japan are utilized in these ways). Another method of utilization of used tires that seems to be of interest, it being patented in 22 countries, consists of the utilization of used tires in blast furnaces, partly replacing blast-furnace coke (2 kg of rubber are equal to 1 kg of blast-furnace coke).

A number of problems along the line of the utilization of materials are also raised for light industry, since only 38 percent of the products that come from this sector are now recovered for reprocessing. Special tasks in this regard devolve upon the researchers, who must give an answer as soon as possible to the problems concerning the procedures and solutions for utilization of textile materials in a mixture with chemical threads and fibers, for reprocessing of leather from used footwear, and so on.

Household Refuse, a Source of Raw Materials and Electric Power

The industrial and urban development in our country has led inevitably to an increase in the volume of industrial, street and household refuse that must be removed from the localities. This situation leads to the necessity of organizing suitable collection and neutralization. Since the present storage capacities are in the process of being used up, the respective refuse will have to be transported over greater distances (40-60 km for Bucharest and 20-30 km for other cities), which would cause a substantial rise in the consumption of liquid and other fuels. The preliminary calculations performed for our country show that the volume of these waste materials will continually rise, as follows from the data in the table below:

	Unit of measure	1975	1980	1990	2000
Household refuse, including:	thousands of tons	2,300	3,000	4,700	6,300
in Bucharest	thousands of tons	430	500	680	840
Street refuse	thousands of tons	1,100	1,600	2,200	2,500
Industrial refuse	thousands of tons	900	1,300	2,400	4,200
	Total:	4,300	5,900	9,300	13,000

The average quantity of this refuse produced per capita per year in the industrially developed countries is 250-300 kg, a level that is expected to be reached in our country by 1980. On a world level, the utilization of these resources constitutes a major concern due to the decrease in the land available for storing them and due to the fact that, through the development of technology, they have become a source of supply for industry.

The composition of the refuse according to kinds of materials varies within very wide limits from one country to another, it containing 30-50 percent combustible matter, 20-25 percent noncombustible matter and 50-25 percent humidity. The combustible matter is composed mainly of: organic matter, food scraps, paper, cardboard, plastic, rubber, leather, textiles, wood and so on, which produce through combustion a caloric power between 1,200-1,800 kcal per kg and solid residue (cinder and ash). From the viewpoint of utilization, the most used methods refer to preselection of the raw materials obtained and incineration with recovery of energy and to simple composting or that with biological fermentation for utilisation as fertiliser in agriculture. The cinder that results from combustion also constitutes a raw material for construction materials. A total of 66 enterprises in which garbage is transformed into fertiliser for agriculture operate in the Common Market countries, and energy is recovered through incineration in populated centers in countries like France, Italy, the FRG, Austria, Japan, Brasil and so on. In Paris, for example, there are 3 enterprises which also serve 56 communes on the outskirts and in which nearly 1.5 million tons of garbage with an average caloric power of 1,800 kcal per kg are incinerated, which produced almost 200 million kWh of electric power in 1973. The needs of 150,000 dwellings per year have been met with this power, concomitant with the delivery of 2.8 million tons of steam that have supplied the urban heating system.

Recently, as a result of the fuel shortage, the specialists have been directing their attention toward pyrolysis, carbonization and hydrogenation of garbage, modern methods by means of which liquid and gaseous hydrocarbons can be obtained. From research done recently in our country too, for cities with over 180,000 inhabitants, it follows that, in the majority of the localities studied, the utilization of household refuse as fuel in thermal power stations is more advantageous than controlled storage or composting for agriculture. The studies made pointed out that, in the localities studied, about 760,000 tons of household garbage, equivalent to 150,000 tons of conventional fuel per year (over 600,000 tons of lignite), could be utilized annually.

As is known, industry is producing over 50 times more than it did 3 decades ago, a reason why the volume of products consumed also has an evolution correlated with these increases. Several times more fabrics, footwear, garments, knitwear, glassware, paper, plastic and articles for home and personal use are thus consumed. After the replacement of personal belongings, huge quantities of materials remain, almost all of them energy bearers for whose manufacture raw materials, supplies and manual labor were consumed. The problem of the recovery and recycling of materials has now become a task for our whole nation. It is important to establish in each enterprise, section and shop, at each workplace, a spirit of high responsibility in the economical use of recycled materials with greater efficiency. Consequently, everywhere, in enterprises or in individual households, the same spirit of thrift must be manifested, it must be understood that the recovery and utilization of materials are for the benefit of all, a spirit of economy must be exhibited, no material resources must be allowed to be wasted.

Respect for national wealth and the position of owner, producer and beneficiary of material goods oblige us to participate with all possible responsibility in the establishment and implementation of the measures meant to lead to the complete recovery and better utilization of the entire fund of material resources that the national economy possesses.

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PROCEDURES FOR DETERMINING FOREIGN EXCHANGE RATES

Bucharest REVISTA ECONOMICA in Romanian No 36, 7 Sep 79 Supplement pp 1-2

[Article by Chief Economist of Romanian National Bank Gh. Danielopolu]

[Text] In accordance with Decree No 90/1978 as modified by Decree No 344/1978, the National Bank of the Socialist Republic of Romania, as well as the Finance Ministry and the Romanian Bank for Foreign Trade, examines the development on a daily basis of the U.S. dollar on the foreign markets in relation to the nine principal Western currencies of importance in our foreign trade. These currencies are the pound sterling, Austrian shilling, Belgian franc, Swiss franc, French franc, West German mark, Dutch gulden, Swedish krona and Canadian dollar.

When significant changes occur in the U.S. dollar's market exchange rate as well as in the foreign prices and average level of the return exchange rates, the above named institutions, together with the Ministry of Foreign Trade and International Economic Cooperation, modify the U.S. dollar's exchange rate in Romanian lei, the U.S. dollar being the reference currency for establishing the exchange rate in lei of the other currencies of the non-Socialist countries quoted in the list of exchange rates of the Romanian National Bank as well as of the Yugoslavian dinar.

The Romanian National Bank publishes a list of exchange rates for currencies in account at least once every trimester in the newspaper ROMANIA LIBERA. The list is compiled according to the usual principle of direct quotation by which the number of lei is indicated per one or one hundred units of foreign currency. Thus, in addition to the currencies of Socialist countries, the currencies of countries with which the Socialist Republic of Romania has payment agreements are also quoted--provided the system of exchange rates in the respective countries has a well-defined character and the currencies are relatively stable.

The official exchange rate in lei for the currencies of non-Socialist countries and for the Yugoslavian dinar is established by the Romanian National Bank based on the relationship between the official exchange rate of the U.S. dollar in the respective currencies as registered on the markets in the respective countries and the official exchange rate of the U.S. dollar in Romanian lei. The rate in lei established in this manner is modified when the above mentioned currencies register variations toward the U.S. dollar of over plus or minus two percent compared to the latest established exchange rate in lei.

In accordance with Decree No 89/1970, beginning 6 March 1978 a gratuity of 168.46 percent has been applied in our country to the official exchange rate in lei when buying and selling currencies of non-Socialist countries and Yugoslavian dinar for the following non-commercial purposes: the maintenance of diplomatic and consular offices, agencies and other representative organizations and their personnel, as well as for visiting official delegations; expenditures of citizens who travel for business or personal interests at their own expense; inheritances and related rights; rents, fees for services, royalties of authorship, pensions, prizes and any other types of income or monetary rights in the currency of the citizens concerned as well as various monetary quotas befitting cultural and athletic institutions and organizations; forms of assistance, donations, subventions, damage payments from insurance of persons or their possessions, civil reparations, taxes, fiscal fees and fines of any type owed by citizens, judicial expenses and other expenses of this nature; membership dues, contributions and participation fees in international organizations, congresses, conferences and other international gatherings, as well as expenses for various materials for such congresses; international fairs and exhibits and for publicity advertising.

The gratuity of 168.46 percent is also applied when discounting the categories of payments indicated above through clearing accounts with non-Socialist countries.

In Romania currency exchange operations are only of direct nature, i.e., basic operations where currency amounts are immediately surrendered and the equivalent amounts in lei, calculated at the current effective rate, are immediately paid out.

The currencies of non-Socialist countries not included in the list of exchange rates of the Romanian National Bank for currencies in account are normally not purchased. However, they can still be turned in in order to be sent for value determination and exchange on a foreign market (Zurich, Switzerland), after which the remitter is paid the equivalent amount in lei at the official rate with a gratuity of 168.46 percent of the currency amount resulting from the foreign exchange (i.e., Swiss franc).

Only currencies of those non-Socialist countries for which there is a quotation of the exchange rate of the currencies in account can be purchased immediately. Excluded from this requirement are the Egyptian pound, Indian rupee, Pakistani rupee and the Yugoslavian currency. The countries in question fall into the following two groups:

1. Currencies that can be sent to the originating countries to be credited to a clearing account (according to provisions of the currency system in the respective countries or provisions of the conventional system of payments with our country) are purchased immediately and firmly in an unlimited amount at the official exchange rate with the gratuity of 168.46 percent established for the respective currency in account. To this category belong the pound sterling, Austrian shilling, Canadian dollar, Danish krone, Swiss franc, Finnish mark, French franc, West German mark, Norwegian krone, Dutch gulden, U.S. dollar and Swedish krona.

2. Currencies that cannot be sent to the originating countries for crediting in a conversion or clearing account are also purchased immediately and firmly in an unlimited amount, but not at the official exchange rate in effect for the respective currencies in account, rather at a purchase rate (plus gratuity of 168.46 percent) to which a reduction of five percent is applied. This category of currencies includes those of the non-Socialist countries found on the exchange rate list for currencies in account at the Romanian National Bank (except those mentioned above in subparagraph 1), as well as the Yugoslavian dinar, the Eyptian pound, Indian rupee and Pakistani rupee.

Upon telephonic or written request the bank will communicate the exchange rates in lei or in other currencies for the purpose of supporting the ministries, central and enterprises.

Special rates, with gratuity or discount, are established in a conventional manner for the currencies of socialist countries, with the exception of the Yugoslavian dinar, for certain non-commercial purposes. These rates were set on the basis of the Multilateral Agreement of 8 February 1969 in Prague as well as subsequent bilateral agreements, such as those made with Cuba, Poland and Hungary in 1976.

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